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UNIVERSITY OF ALBERTA

The Peer Counselor Perceptual Organization Scale: A Validation Study

by

Dale Glen Parr

A Dissertation Submitted to the Faculty of Graduate Studies and Research in Partial Fulfillment of the Requirements for the DegreeDoctor of Philosophy

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

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FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled "Peer Counselor Perceptual Orientation Scale: A Validation Study" submitted by Dale Glen Parr in partial fulfilment of the requirements for the degree of Doctor of Philosophy in Educational Psychology (Counselling Psychology).

Supervisor

Date: September 6, 1989

ABSTRACT

The purpose of this study was to develop and establish the validity of the Peer Counselor Perceptual Organization Scale (PCPOS). In doing so, the relationship between perceptual organization and help-intended behavior, specifically the communication of empathy, was examined. The combination of perception and ability to communicate empathy was investigated as grounds for effectively selecting students interested in peer counseling.

In this study, a total of 765 subjects, aged 11-18, was drawn from 16 elementary, junior high and secondary schools. The subjects were administered the Peer Counselor Perceptual Organization Scale (PCPOS), the Interpersonal Reactivity Index (IRI), and the Discrimination and Communication Index (DCI). Peer program coordinators also completed these measures. In addition, the coordinators rated each applicant on the Counselor Rating Scale.

The subjects were divided into three groups. Group 1 consisted of students who applied to be peer counselors and were selected. Group 2 consisted of students who applied to be peer counselors but were not selected. Group 3 was a control group consisting of students who did not apply for selection as peer counselors. Group 3 subjects were drawn from classrooms and were administered the information packet by the participating peer coordinator. Stratified random sampling was used to match Group 3 subjects by grade and sex with Group 1 and Group 2 subjects. Subjects in Division III (grades 7, 8, and 9) were designated as Grade 1 and subjects in Division IV (grades 10,11, and 12) were designated as Grade 2. There was also a peer coordinator group (adult counselors and

teachers) included in the study. This group is referred to as Group 4. The coordinators selected the students as peer counselors.

Analyses were based upon principal components analysis/varimax rotation, multiple univariate analysis, and discriminant analysis.

Results indicated that the PCPOS has reasonable test-retest reliability and some criterion and construct validity. PCPOS items correlate highly within scales and moderately across scales, suggesting that the scales are internally consistent. Groups 1 and 2 mean scores were significantly higher than Group 3 mean scores, and Female mean scores were significantly higher than Male mean scores on the PCPOS.

Although the present study reveals that the PCPOS has reasonable test-retest reliability and some criterion and construct validity, the PCPOS has not been used to predict performance on an a priori basis. Future research might attempt to assess the predictive utility of the PCPOS for selecting peer counselors.

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CHAPTER 1

Introduction

The literature on the theory and history of helping would seem to justify using lay persons for counseling (Brammer, 1988; Carkhuff, 1969a; 1969b; Combs, 1969; Combs & Avila, 1985; Fiedler, 1950; Rogers, 1958; 1962; Rowe, Murphy, & DeCsipkes, 1975; Senger, 1987; Sparks & Hudson, 1984; Varenhorst, 1984). These individuals have an interest in counseling and frequently have natural abilities which draw others to them. An advantage in using lay counselors is that they can be drawn from the community and thereby offer a level of peer comfort and immediacy which a professional counselor may not provide.

As far back as twenty years ago some school systems recognized the value of lay counselors, and from this recognition evolved the concept of peer counseling. Students who were interested in helping others were identified in a number of ways. They were given training and were subsequently referred to as peer counselors, supporters, facilitators, or helpers. Today, these types of students are recognized as natural helpers and in many instances are already fulfilling a facilitative role. They are often the students to whom others turn because they are naturally empathic, active, nonjudgemental listeners. These natural helpers only require training to optimize their skills (Brammer, 1988; Carr, 1981;Tindall & Gray, 1985). Carr (1981) states that with training, the peer counselor can be taught

> to provide a nonjudgemental listening posture which encourages others to express and explore their concerns, worries or frustrations. This exploration often prevents self-destructive or other acting-out behaviors by encouraging a student to talk with someone who listens, or 'has been there' or [who] can empathize. (p. 4)

Statement of the Problem

Carkhuff and Berenson (1976), and Cole (1982) have pointed out that helper responses can either facilitate or detract from growth. Carkhuff (1969b) stated that individuals must be systematically selected who can function most effectively in the helping role.

> We must select individuals with the strength and sensitivities to make a constructive difference in the lives of others and recognize that not everyone can be effective in human relations. (p. 278)

Therefore, selection is an integral part of the peer counseling process because with valid and reliable selection procedures, there is an increased probability that students are fulfilling the helper roles effectively. Helper effectiveness is an important issue regardless of whether the helper is a professional counselor or an adolescent peer counselor.

At this point in time there appears to be no standardized selection procedure to identify such individuals. The impetus for the research concerning peer counseling in this study can be summed up by the question, "How does one effectively identify and select those students who are capable of helping others?" A central point in the selection process is whether one can pick well. In order to pick well, which criteria does one use for selecting helpers if only a limited number of students can be selected?

A review of the literature reveals a variety of selection procedures (Allcorn, 1988; Bowman, 1980; Brown, 1974; Campbell, 1983; Canniff, 1983; Carkhuff, 1969a; Carr, 1981; Frank, Ferdinand, & Bailey, 1975; Frenza, 1985; Hoffman, 1976; McCann, 1975; Sciacca, 1987; Shulman, 1988; Sparks & Hudson, 1984). However, as there are no consistent criteria applied in selection, a consistent selection procedure is required. The

purpose of the present study is to contribute to the more effective selection of peer counselors.

Purpose of the Study

This study will develop and establish the validity of the Peer Counselor Perceptual Orientation Scale. In doing so, it will explore the relationship between perceptual organization and help-intended behavior, specifically, the communication of empathy.

The current philosophy behind selection in peer counseling is that students are drawn from representative groups within the school. This philosophy is employed because students usually turn to friends within their own interest group when they have a concern. For example, a football player might talk to another football player (Carr, 1981). Selection may be conducted by weighing the results of teacher recommendations, student nominations, interviews, and grades.

The implications for this study and peer counseling are that an instrument may evolve which can contribute to the standardization of peer counseling selection procedures. It is understood that individuals will be selected from representative groups within the school. However, this research may contribute to a better understanding of whom to select within specific groups, as well as provide an awareness and understanding of those students who were not selected. Furthermore, these data could be a basis for future research in that they may provide an indication as to whether measuring perceptions and helping responses have any utility in assessing helping relationships.

The following were questions which arose from the problem statement.

1. Will there be significant correlations between students' scores on a scale measuring perceptions and students' scores on a scale measuring the ability to discriminate and communicate empathy?
2. Will there be significant correlations between students' scores on a scale measuring perceptions and students' scores on a scale measuring different types of empathy?
3. Will there be significant mean score differences on a scale measuring perceptions among students selected as peer counselors, students who applied to be peer counselors and were not selected, and students who did not apply to be peer counselors ?
4. Will there be significant correlations between students' scores on a scale measuring perceptions and selectors' ratings of each applicant for peer counseling on the following:
   (a) Self-concept,
   (b) Understanding of others,
   (c) Understanding counseling purpose/task?
5. Will there be significant differences between the selectors' ratings of selected applicants and rejected applicants on the following:
   (a) Self-concept,
   (b) Understanding of others,
   (c) Understanding counseling purpose/task?

6. Will there be significant differences between program coordinators' (selectors) mean scores and students' mean scores on a scale measuring perceptions ?
7. Will the combined student scores on a scale measuring perceptions, a scale measuring the discrimination and communication of empathy, and a scale measuring different types of empathy predict inclusion in either a selected group of peer counseling applicants or a group of peer counseling applicants who were not picked.?

Limitations of the Study

1. Validity of the information provided in all phases of data collection was limited by the subjects willingness to respond precisely and honestly, a limitation inherent in the utilization of self-reported information.
2. Subjects cooperation in this study may not be representative of other populations, which may limit the generalizability of the findings.
3. As with most studies, a truly random selection of subjects was not possible. Subjects were chosen from the following school districts: City of Edmonton Public School District, St. Albert School District, Strathcona School District, and Fort Saskatchewan Separate School District.

Definition of Terms

The following terms have been conceptually defined for the purpose of this study:

Attitude - A state of mind which predisposes an individual to evaluate people, things, or ideas. Attitudes are a function of values and beliefs (Hills, Handcock, & Davis, 1987).

Belief - The emotional acceptance of a proposition, statement, or doctrine (Reber, 1985).

Commitment - "the pledging or binding of the individual to behavioral acts" (Kiesler, 1971, p. 30)

Empathy - "... a sensitivity to the other person's current [thoughts and] feelings, and the verbal facility to communicate this understanding in a language attuned to those feelings "(Truax and Carkhuff, 1967, p.46).

Helper - Any individual, professional or lay, who through beliefs, values, and attitudes, provides a forum (i.e., a nonjudgemental listening posture, empathy, respect, genuineness) to assist others in resolving personal or interpersonal problems.

Peer counseling - The involvement of students in the planning and implementation of programming which impacts on the school community and enhances the informal, pre-existing student communication system (Davis, 1987).

Perception - "The process of organizing sensory inputs into a realistic and meaningful whole" (Goldenson, 1984, p. 544). A perceptual schema is evolved which reflects a subject's cognitive patterns which form a frame of reference for responding to environmental stimuli (Goldenson, 1984).

Self- concept - "According to client-centered theory, the perception we have of ourselves based on information from significant others and from our experiences. Our image of who and what we are, what we are all about." (Okun, 1987, p.282).

Value - "An abstract and general principle concerning the patterns of behavior within a particular culture or society which, through the process of socialization, the members of that society hold in high regard. These social values, as they are often called, form central principles around which individual and societal goals can become integrated" (Reber, 1985, p. 810).

The rest of the dissertation consists of the following sections. Chapter Two reviews the literature and states the hypotheses. Chapter Three outlines and explains the methodology used in the study. Chapter Four reports the results of the analysis while Chapter Five provides a discussion of the findings, conclusions and recommendations. Ancillary results from the analysis of the Discrimination and Communication Index and the Interpersonal Reactivity Index are reported in Appendix G.

CHAPTER 2

Literature Review

Introduction

The review of literature focuses on four main areas. These are helping relationships, the effect of variables such as age and sex on adolescent development, peer counselor characteristics which may have an impact on the selection process, and counselor selection procedures. In section one, helping relationships are introduced and examined through an historical overview of therapeutic relationships. Then, the effect of perception on helping is reviewed. Core conditions involved in helping, specifically the communication of empathy, and an analysis of empathy as both trait and skill follow. It is noted that although psychotherapeutic outcome research has focused on counselor characteristics, at this point in time specific characteristics have not been discovered. The intent of this study is to demonstrate that a specific perceptual framework may be characteristic of effectively selected counselors.

The second section of the review focuses on the effects of age and sex on adolescent development. A subsection, social and cognitive development, is integrated with the discussion about age and sex in order to provide a more comprehensive picture of development as it relates to selection.

The third section, counselor characteristics, reviews the issues of interest in and aptitude for counseling. The section explores the idea that perceptual organization and a commitment to helping may contribute to an interest in peer counseling.

The fourth and final section discusses a variety of issues related to selection. This includes a subsection on the concept of nonselection. Subsequently, the philosophy of selection as well as current methods of selection are critiqued.

Helping Relationships

Therapeutic Relationships

One of the first psychologists to examine what constituted an effective helping relationship was Fiedler (l950). He was interested in discovering what novice and expert psychotherapists believed was the nature of an ideal therapeutic relationship. In interpreting the results of his study, Fiedler suggested that a good therapeutic relationship may be a variation of good interpersonal relations. He also found that a layman could describe a good helping relationship as well as an expert. In a similar study, Heine (1950) concluded that there probably is a psychotherapy, and the multiplicity of therapies are modifications thereof.

Carl Rogers (1958) reviewed a number of studies concerning the nature of the helping professions and concluded:

> It seems clear that relationships which are helpful have different characteristics from relationships which are unhelpful. These differential characteristics have to do primarily with the attitudes of the helping person on the one hand and with the perceptions of the relationship by the 'helpee' on the other. (p. 11)

Fiedler, Heine and Rogers were exploring a common theme--the essence of an effective counselor-counselee relationship. They also found that one does not need to be a professional psychologist to discern what helping means. However, the question of exactly what elements are involved in making an effective counselor remained unanswered.

Combs (1969) was intrigued by the hypothesis that there was something other than knowledge and skills which determined helping effectiveness. A series of studies probing the helping professions, such as teaching, counseling, nursing, or ministering revealed that effective helpers possess a perceptual framework comprised of a positive self-concept, a recognition of others, and a sense of purpose and task accomplishment.

A number of studies have confirmed that there is no evidence to suggest differentiation in the effectiveness of theoretical orientations to counseling (Avila & Combs, 1985; Basham, 1986; Beutler, 1983; Bush, Glenwick & Stephens, 1986; Frank, 1987; Jevne, 1978; Jones, 1986; Korchin & Sands, 1983; McConnaughy, 1987; Ponterotto and Furlong, 1985; Senger, 1987; Shertzer and Stone, 1974; Smith, Glass and Miller, 1980; Strupp, 1978). Bush, Glenwick, and Stephens (1986) stated that the strongest predictors of psychotherapeutic success with children were the child's previous exposure to therapy, therapist type (permanent staff or intern), family constellation, therapist experience, and referral source. Basham (1986) reported that clients come to therapy with a heightened sense of expectancy. He postulated that asking the question, "Does psychotherapy work?" is inappropriate because it construes a passive recipient view of psychotherapy which provides only a limited and misleading measure of the dynamics of change which occur. Following the same line of thought, Lambert and DeJulio (1978) argued that regardless of theoretical orientation, approximately 90% of the variance in psychotherapy can be accounted for by the therapist, client, and therapy relationship. Appropriate

interpersonal compatibility needs to be combined with kind and authentic caring to facilitate effective therapy (Beutler, 1983).

Frank (1987) encapsulates the issues in the following quotation:

> The fundamental problem may be that traditional scientific methods have been devised to discover relationships between facts, that is, objectively definable, measurable, repeatable phenomena. Facts can be confirmed or disconfirmed by the objective criteria of the scientific method; meaning cannot. The traditional methods of exact science are ill- suited to deal with the meanings and values that provide the very stuff of psychotherapy. (p. 298)

Successful psychotherapy involves a number of complex factors, not the least of which is the client - therapist relationship. Unfortunately, the complexity of counseling relationships often precludes partialling out specific elements for study. Besides creating a climate which can foster warmth and honesty, a helping relationship creates favourable conditions for activating a process of self knowledge and self-realization. The following quotation (Yalom, 1985, p.58) sums up the mechanism of action within a helping relationship: "Acceptance by others and self-acceptance are mutually dependent; not only is self-acceptance basically dependent on acceptance by others, but acceptance of others is fully possible only after one can accept oneself." It would seem that self-esteem and public esteem are intimately related. If students have a positive awareness of self, as well as others, then they may have an interest in peer counseling.

Essentially, the nature of the approach of helpers is determined by who they are as persons (Avila & Combs, 1985; Brammer, 1988; Frank, 1987; McConnaughy, 1987; Rogers, 1958). The counselors' characteristics and social experiences shape the set of responses which are offered to an individual requesting assistance (Frank, 1987; McConnaughy, 1987;

McDowell, 1986; Reardon, 1987). McConnaughy, (1987) theorizes that the character and interpersonal style of the counselor determine the nature of the help which is offered to a client. The actual techniques employed by the therapist are of lesser importance than the unique character or personality of the counselor (Carkhuff, 1969b; Cole, 1982; Combs, Richards, & Richards,1976; Frank, 1987; McConnaughy, 1987; Robertson, 1986; Senger, 1987; Varenhorst, 1984). McConnaughy (1987) further suggests that the more helpers value themselves, the more they will value others. In conclusion, people choose to help because of who they are as persons. The helper "as a person is the primary influence in the therapy enterprise" (McConnaughy, 1987, p. 303).

Helping and perception

Currently, the literature on helping (Beutler, 1983; Brammer, 1988; Frank, 1987; McConnaughy, 1987; Rogers, 1958; Senger, 1987; Smith, Glass, & Miller, 1980; Yalom, 1985) has suggested that the helper—helpee relationship is a major contributor to helper effectiveness. However, because there are a variety of nuances involved in a therapeutic relationship, there has been difficulty in the past in determining the makeup of an effective helping relationship (Basham, 1986; Jones, 1986; McConnaughy, 1987; Robertson, 1986; Rowe, Murphy, & DeCsipkes, 1975; Senger, 1987; Severy, 1975; Shertzer and Stone, 1974). Therefore, probing the perceptual organization of potential peer helpers seems to be a reasonable approach based on the results of previous research (Beutler, 1983; Combs, 1969; Combs & Soper, 1963; Deitz, 1975; Robertson, 1986; Rotter, 1971; Severy, 1975).

The hypothesis formulated in this investigation is that one of the variables involved in helping relationships, the communication of empathy, is differentiated as a function of the helper's perceptual framework. A related hypothesis was borne out in a study of effective counselors by Combs and Soper (1963). In this study, "good" counselors were differentiated from "poor" counselors by the ways they perceived people. Effective counselors tended to see people as able, worthy, dependent, and having integrity, whereas ineffective counselors saw people as unfriendly, untrustworthy, and unable. Effective counselors had a particular perceptual framework comprised of a synthesis of beliefs, values, and attitudes which contributed to a conceptualization of others, self, and purpose. Combs and Soper stated:

A. With respect to general perceptual orientations, good counselors will be more likely to perceive:

1. From an internal frame of reference rather than an external frame of reference.
2. In terms of people rather than things.

B. With respect to the perceptions of others, good counselors would perceive others as:

1. Able, rather than unable (i.e., people have the capabilites to handle their problems.
2. Being dependable rather than undependable.
3. Being friendly and well-intentioned rather than unfriendly.
4. Being worthy rather then unworthy.

C. With respect to perceptions of self, good counselors would perceive themselves as:

1. Being identified with people rather than being apart from other persons (i.e., individuals believe themselves to be a part of all humankind).

2. Having the ability to cope with problems. Individuals would see themselves as enough rather than wanting.

3. Self-revealing rather than being reticent about self-disclosing.

D. With respect to purposes, good counselors would perceive their purposes as:

1. Essentially freeing and facilitating, rather than coercing and/or manipulating. Control of others would not be important.

2. Altruistic rather than self-serving.

3. Concerned with events in a broad rather than a narrow perspective. They would see beyond the present to future and larger meanings.

Examining a perceptual framework in terms of self, others and life purpose seems appropriate to a study involving preadolescents and adolescents. They are perhaps more aware of themselves, and how others perceive them than at any other time in their lives (e.g. Elkind (1967) describes the psychological phenomena of the personal fable and imaginary audience which many teenagers experience). A student's perceptual organization contributes to the determination of values which are then possibly reflected in attitudes and behavior. Educators are becoming increasingly aware of the importance of self-esteem and how it affects communication and relationships. There is not a body of research which has studied adolescents' perceptions and how these perceptions relate to

helping behavior. The area is phenomenological in nature and difficult to analyse. In the opinion of this author, the general perceptual orientations delineated by researchers (Avila & Combs, 1985; Combs & Soper,1963; Deitz, 1975; Severy,1975) serve as a foundation from which explanations can be generated about adolescent behavior and helping relationships.

As was mentioned in the introduction, not only does the perceptual framework of the counselor influence the counseling process, but also the role of certain core conditions. The following section develops the topic of core conditions and how they are are connected to perceptions.

Core Conditions

This section reviews the concept of core conditions and then presents the related areas of the communication of empathy, the components of the Interpersonal Reactivity Index (IRI) (Davis, 1983), and an understanding of empathy as a trait and skill. A critique and summary of this section is contained under the subheading "Help-intended behavior".

The literature (Carkhuff, 1969a; 1969b; Carkhuff & Berenson, 1976; Carr, 1981; Cole, 1982; Spielberg, 1980) recognizes that there are certain core conditions which are required in effective helping. These include empathy, respect (unconditional positive regard) genuineness, self-disclosure, immediacy and confrontation. These core conditions contribute to significant interactions with other human beings (Brammer, 1988; Beutler, 1983; Fiedler,1950; Heine,1950; Strupp, Fox, & Lessler, 1969; Truax and Carkhuff,1967). Successful clients underscored the fact that therapists were warm, respectful and human. Leiberman, Yalom, and Miles (1973) studied leaders from ten ideological schools. Their conclusion was that differences

were more apparent than real. Successful counselors closely resemble one another in several areas relevant to successful outcome.

Ironically, therapists often underestimated those qualities which were of importance to their clients. Schaffer and Dreyer's study (1982) of 100 acute inpatient group members and their 30 behaviorally-oriented therapists revealed that the therapists underestimated the importance of altruism, advice, and self-understanding. In Feifel and Eells' study (1963) of 73 patients and 23 psychoanalytically-oriented therapists, the patients attributed successful therapy to relationship factors, whereas the therapists attributed success to technical skills.

The studies accentuate that what the clients valued was the importance of the relationships and the personal, human qualities of the helper (Yalom, 1985). Human relationships are complex, yet when successful helping interactions are examined, the core conditions of empathy, respect and genuineness do surface consistently as a function of satisfactory communication. This dissertation is concerned with the first condition, empathy, or to be more precise, the communication of empathy. Hundleby (1973, p. 20) states:

> "Communication of empathy constitutes the essential variable in determining whether or not the other person realizes he is being understood" (Carkhuff, 1969a, p.197). Consequently, a preferable definition of empathy, as it relates to facilitating an empathic relationship, would include the diagnostic skill of understanding as well as the communicative skill of letting the other person know he has been understood. A definition which probably comes the closest to this idea is that of Truax and Carkhuff who define empathy as "a sensitivity to the other person's current feelings, and the verbal facility to communicate this understanding in a language attuned to those feelings"(1967, p.46).

Empathy, in its broadest terms, refers to the reactions of one person to the observed reactions of another individual. Initial research on empathy focused on two broad response classifications (Davis, 1983). The first is a cognitive reaction which requires the ability to understand the other's perspective (Carkhuff, 1969a; Dymond, 1949; Tindall & Gray, 1985). The second is an affective reaction which requires the ability to experience the other's feelings (Mehrabian & Epstein, 1972; Stotland, 1969; Stotland, Mathews, Sherman, Hansson, & Richardson,1978).

Contemporary research (Davis, 1980;1983; Gladstein & Associates, 1987; Mehrabian & Epstein, 1972) is now recognizing three domains: the cognitive, the affective, and the affective-cognitive. Davis (1980) suggests that the cognitive and affective components of empathy produce an interdependent system which can never be truly understood unless the main effects and interaction are both considered. Unfortunately, when consideration has been given to the multidimensionality of empathy, the effects have been obscured by summing together the different domains. Davis (1980) reports three such examples: (1) Hogan's (1969) empathy measure includes both cognitive and affective items, but the responses are combined in a single score. (2) Mehrabian and Epstein (1972) constructed a scale ostensibly to measure affective response, yet there are cognitive items, and all responses are reported as a single score. (3) Similarly, Feshbach and Roe's (1968) scale to measure empathy in children confounds the ability to recognize the emotion in a situation, and the ability to react emotionally to the stimulus.

It would appear that discrepancies in research have been a result of different definitions of empathy. Hackney 's (1978) tracing of the changes in definitions from 1958-1978 supports this idea. In addition, Hackney notes that contemporary studies have placed a greater emphasis on empathy as a communication skill (i.e., giving accurate and adequate responses to a client's messages). Barrett-Lennard's (1981) theoretical stance also attempted to address the issue of discontinuity. He suggested an empathic cycle of (1) empathic resonance (the affective experiencing of the other) (2) expressed empathy (the communication of empathy) and (3) received empathy (the other's experiencing of the empathizer's response). Gladstein (1987) views Barrett-Lennard's (1981) conceptualization as especially noteworthy because it reduces the confusion surrounding different definitions of empathy.

The studies cited in the preceding paragraph (Barret-Lennard, 1981; Gladstein, 1987; Hackney,1978) are pivotal for this dissertation because they emphasize the many facets of empathy and the fact that it is a communication skill. If empathy can be broken down into different components, then one can account for variance. This is one of the intentions of this study. If different elements of empathy can be identified, and/or if elements can be correlated, then peer program coordinators may be offered a process to select peer counselors more effectively. To this end, Davis' (1980,1983) Interpersonal Reactivity Index (IRI) was chosen as a measure of empathy.

Davis' Interpersonal Reactivity Index is based on a multidimensional approach to empathy. "The rationale underlying the IRI is that empathy can

best be considered as a set of constructs, related in that they all concern responsivity to others but are also clearly discriminable from each other" (Davis, 1983, p.113). Subsequently, Davis taps the global concept of empathy in four subareas: Perspective Taking (cognitive empathy); Empathic Concern (affective empathy); Fantasy (the tendency to transpose oneself into the thoughts and feelings of imaginary characters); Personal Distress (a measure of anxiety in stressful interpersonal settings).

Although the IRI does not address all empathic contingencies (Davis, 1983), it does measure qualities which have theoretical and practical significance for this study. For example, Gladstein (1987) contends that perspective-taking is learned and the sophistication of its use appears to be a function of biological maturation. Perspective-taking in this dissertation is explored through the variable of age (grade) and its effect on the communication of empathy.

The second quality being measured, emotional contagion, develops in conjunction with perspective-taking. Hoffman (1977) defines this development in terms of egocentrism. The child's ability to be nonegocentric is mediated by an ongoing shift from a self-oriented emotional distress to another's discomfort, to a sense of concern for others.

The third element, fantasy, has been extensively researched by Stotland, Mathews, Herman, Hansson and Richardson (1978). Their research suggests that fantasy can be used as a measure of sensitivity to the thoughts and feelings of others. This dissertation is interested in exploring these perceptions.

The last element, personal distress, also has interest because it may focus on those students who profess to be interested in helping, but are in reality overwhelmed by emotionally charged situations.

In conclusion, although empathy is a complex variable, Davis (1983) has identified four components which can be measured. One of the objectives of this dissertation is to determine whether perceptual organization and empathy are linked. Based on the preceding research, (Combs & Soper, 1963; Davis, 1981,1983; Deitz, 1975; Severy, 1975) both perceptual organization and empathy seem to have merit as predictors of peer helpers in an effective selection procedure.

Perceptual organization and empathy can also be combined in such a way as to provide an understanding of empathy as both trait and skill, the subsection next under review.

Empathy--trait and skill. A trait or characteristic (Spielberg, 1980) usually refers to an unvarying physical characteristic or behavior pattern. "Empathy, then, describes a particular type of feeling or emotion, but 'being empathic' may describe a consistent behavior pattern observed in an individual's relationships with other people" (Cole, 1982, p. 24). To the extent that it is stable, it is a trait; to the extent that it can be observed, quantified, taught and learned, it is a skill. Considered in this way, both terms are appropriate to describe essential helper qualities, the trait reflecting the presence of the quality, and the skill reflecting the behavioral development of the quality (Cole, 1982).

The issue of facilitative traits and skills applies to this study in the following manner. An individual may be in a situation which requires the

demonstration of empathy as a quality, but empathy has not yet been demonstrated. If the quality is not a personal trait, the capacity for development as a skill, even with training, may be somewhat limited. Just as individuals do not have the same talents in science or athletics, individuals differ in the "presence and actualization of helping skills. When we refer to the core facilitative traits as skills, we are emphasizing the conscious development by the helper of these existing personal characteristics to a high degree, so that they can be helpful to the client" (Cole, 1982, p. 24). In sum, it would seem the facilitative personality traits which are a function of personal values can be combined with training to produce an effective peer helper. The contention of this study is that those individuals who have a perceptual framework oriented towards a positive self-concept, helping others, and a sense of counseling purpose will possess and be able to demonstrate high levels of empathy, one of the core facilitative conditions

Help-Intended Behavior. Because the characteristics and interpersonal style of the counselor determine the nature of the help which is offered to a client, there are any number of variations of helping which can be offered. However, the exact behaviors would involve different comprehensions of the kind of helping required, and secondly, different performance skills (Severy, 1975). Core facilitating characteristics or traits which seem to be essential to the helping process need to be developed as skills in order to be helpful to the client.

These core dimensions are partly communicated through affect (e.g. body language, tone of voice), and also through what is said; that is, the specific response of the helper (Cole, 1982). Watchel (1980) noted how little

importance was given to the words employed by therapists. Choice of words frequently conveys empathy, genuineness, and respect. Ultimately, training could develop the correct phrasing. Yet, if one possesses facilitative personality traits and personal values which generate helping attitudes and behaviors, then one would respond differently, either verbally or in writing, from a non-helper. Carkhuff (1969b) concludes that the primary functional index of helping effectiveness is to place individuals in some form of helping role so that they can demonstrate their level of interpersonal functioning.

To summarize, empathy has received support as a likely component of the tasks (i.e., conflict management, peer tutoring, school orientation, and personal support) which are involved in peer support (Gray & Tindall, 1974; 1978a; 1978b; McIntyre, Thomas, & Borgen, 1982; Tindall & Gray, 1985). It would also appear that perceptual organization is likely connected to the communication of empathy.

As one could infer from the preceding paragraphs, perception, empathy, and help-intended behavior are all major areas of study in their own right. This author recognizes the complexity of the variables involved, and the complexity involved in their interaction. In addition to the preceding variables, age and sex may also impact on this study. They are the primary factors discussed in the second major section of this review.

Age and sex

Choosing to help may be a function of age. Preadolescents and adolescents may choose to help for different reasons; for example, to be part of a group, to be liked, to work through one's own problems, or to fulfill a sense of commitment to others (Brammer, 1988; Bruner, 1972; Burleson,

1985; Burleson & Waltman, 1987; Carr, 1981). A question which will be a part of the analysis in this study is whether perception of self, others, and counseling purpose, as well as level of empathy, one of the core facilitative conditions, is a function of age.

Until recently (Goldstein & Michaels, 1985), the process whereby perception of feelings is linked to subsequent levels of empathic understanding has received minimal attention in the developmental literature. As individuals grow and mature through preadolescence and adolescence, they develop differentially. The developmental shift from unilateral relationships, such as those between parent and child, is combined with a diminution of egocentrism. Chandler and Boyes (1982) reported developmental differences between middle childhood and adolescence in socialized roles (comprehension of the cognitions and feelings of others) which are representational of the emergence of formalized thought. This maturation is synthesized with the ability of the emerging adolescent to take on social roles (Coleman, 1974; Coleman, 1980). These social roles are an essential element of peer relationships, in effect, providing the structure and parameters of the adolescent social environment.

Selman (1980) identified the five developmental stages which occur in peer relationships:

Stage 0: Close friendship as momentary interaction

Stage 1: Close friendship as one-way assistance

Stage 2: Close friendship as cooperation

Stage 3: Close friendship involving intimate and reciprocal sharing

Stage 4: Close friendship as autonomous interdependence.

From the first stage to the last, there is a qualitative shift from a focus on surface and behavioral characteristics when perceiving others, to a focus on the others' traits and values (Broughton, 1978; Goldstein & Michaels, 1985; Montemayor & Eisen, 1977). McDowell (1986) states that the quality of friendship shifts from the young child's view that friendship is momentary, to the preadolescent and adolescent view that relationships involve attending to others' (friends) psychological needs. As the development of formalized cognitive operations mediates the perception and subsequent experience of egocentrism, preadolescents and adolescents develop healthy social relationships by reciprocally giving and receiving friendship. A review of the literature (Adams, 1983; Brammer, 1988; Bruner, 1972; Burleson, 1985; Burleson & Waltman, 1987; Carkhuff, 1980; Carr, 1981; McDowell, 1986; Selman, 1980) reveals that the requirements for healthy social development are the peer relationship skills of empathy, problem-solving, role-taking, reciprocity, and genuineness.

A number of sources (Adams, 1983; Elkind, 1967; 1970; Erikson, 1968; McDowell, 1986; Overton, 1983) have reported significant, social developmental adjustments as children grow into the stages of middle childhood, preadolescence, and adolescence. However, as McDowell (1986) indicates, it is not clear whether developmental differences will occur when preadolescent and adolescent helping responses are assessed.

A related question to be investigated is whether sex influences perception and helping responses. Gender is a social stimulus and person stimulus, thus in any interpersonal communication, expectations of behavior

may be a function of gender. Kurdek and Krile (1982), in an analysis of the relationship between peer acceptance and both interpersonal understanding and perceived social competence, reported that girls scored significantly higher than boys of the same age on interpersonal understanding (ages 8-14). Adams (1983) found that females scored higher than males across all age groupings (N=20) when empathy level was assessed in a simulated helping situation. Hoffman (1977) found that boys and girls seem to have the same role-taking abilities, but girls tend to be higher in emotional contagion empathy. That is, they actually feel as the other feels. Therefore, age-related changes in empathy could vary dependent on whether role taking or emotional empathy was being measured.

Goldstein and Michaels (1985) state that as part of sex-role socialization, girls in society are taught to be more sensitive to interpersonal cues and to place a greater value upon relating expressively to others. In addition, females are socialized to develop personal attitudes and traits which will allow them to show caring and concern for the emotional state of babies and younger children.

A theoretical analysis of empathy in object relationships (Jordan, 1983) as reported by Goldstein and Michaels (1985), suggests the factors which inhibit the development and use of empathy by males/females may be different.

> Males tend to have more difficulty with the essential and necessary surrender to affect and momentary joining with the other, as it implies for them passivity, loss of objectivity, and loss of control. This may lead to widespread constriction of empathic responsiveness in men. Problems of empathy in females, however, typically involve difficulty

> reinstating a sense of self and cognitively structuring the experience. (p.60)

It would seem that the socialization process which males experience may make it more difficult for them to convey empathy.

Research indicates that males and females can differ in many significant ways in their social relationships. Baumrind (1980) reported evidence that males have instrumental personalities while females are more likely to have affiliative natures. Gilligan (1982) and Ford and Lowery (1986) state that male morality is typically based on the characteristics of autonomy and justice, while typical female attributes of feeling responsible to and for others is based on a sense of responsibility and caring. In general, females are more accepting of personal counseling interviews than males, and are likely to be more expressive about their feelings (Kadushin, 1983; Whalen & Flowers, 1977).

Kohlberg (1966) took the position that underlying cognitive processes influence the acquisition and performance of sex-typed behaviors. He suggested that sex-role development entails the formation of identity concepts, and is not merely a function of biologically determined dispositions or socially learned behavioral traits. Children's understanding of sex-role concepts is a result of how they order perceived differences and similarities between males and females. Subsequently, children are motivated to adopt behaviors they believe are appropriate to their gender (Turiel,1983). It is only with the emergence of formal operations in adolescence that students are able to transcend sex-typed patterns in cultural and social environments (Haynes & Avery, 1979; Richardson & Johnson, 1984). Consequently, one of the questions this study seeks to

answer is whether scores on the perceptual scale and helping response scales will be differentiated by sex and/or age.

In the process of discussing these two variables, sex and age, it becomes readily apparent that there is a relationship between biological, social and cognitive development. As children mature, the sophistication of their interaction matures. This interaction is important to this study because social cognition appears to be a factor in determining whom students listen to, whom they choose as friends, and whom they turn to for advice.

Social and cognitive development

When social cognition is studied in a developmental context, one infers underlying bases of social functioning. Social perspective-taking, as opposed to role-taking, involves developing an understanding of how human points of view are related and coordinated (Selman, 1980). This understanding is derived from "what is essentially a matrix of interacting cognitive and affective processes" (Hoffman,1983, p. 47). An example of this interaction would be the development of empathy.

> ...how people experience empathy depends on the level at which they cognize others. This suggests that empathy development must correspond at least partly to the development of a cognitive sense of others. The cognitive sense of others undergoes dramatic changes developmentally and thus provides a conceptual basis for a developmental scheme for empathy (Hoffman, 1983, p.7).

Empathy for another's general plight (i.e., an awareness that others have feelings beyond the immediate situation) evolves in late childhood and preadolescence. This "worldview" represents a combination of empathic affect and an understanding of the perceived plight of others. This may provide a motivational base, particularly in adolescence, for the

development of certain social and political philosophies centered around the alleviation of the distress of unfortunate individuals and groups (Hoffman, 1980). This broadened awareness is a concept which is focused upon in this dissertation. Without a sense for the situations of others, one may not be so readily inclined to offer assistance. It may be possible that the development of a "worldview" differentiates a helper from a nonhelper.

The orthogenetic principle suggests that development proceeds from a global, undifferentiated state to states of increasing differentiation and integration. This process flows along two continuums. These are egocentricism-nonegocentricism and concrete-abstract thought. The integration of these two dimensions, at differentiated levels, contributes to the explanation of the development of children's understanding of persons (Turiel, 1983). In effect, a perception of others, that is, a"worldview" is internalized as one matures.

By the time students are in grade 7 (the lowest grade sampled in this dissertation), they may have developed a sense of altruism which facilitates their helping a classmate. These "helpers" may believe that helping another student makes a difference in the world. By being centered towards others, these students would display a helping orientation which may as yet be untapped. Their social-cognitive maturity encourages the dissipation of egocentricism.

It seems reasonable that students displaying socially appropriate helping behaviors would be reinforced by other students. The helping students would eventually be identified as natural helpers. It is the contention of this study that the students perceptual framework of self,

others, and counseling purpose could be responsible for the initiation of the helping behavior. Social-cognitive maturity aids and abets this process. In sum, social cognition seems to be a maturational process which is noteworthy and which impacts upon perception, empathy, and the communication of empathy.

As was suggested at the beginning of this subsection, the argument can be made that one's perceptual framework and ability to communicate empathically are characteristic of specific individuals. If this is true, then the experiences and attitudes which contribute to this unique combination deserve to be examined. In order for communication to be effective, it needs to be activated and transmitted cognitively and affectively. That is, thought and emotion are connected. As a result, it seems reasonable to expect that a student's attitudes, values and beliefs, which are a function of thoughts and emotions, would have some impact on how he/she interacts with others, and in particular, communicates empathy.

The next section reviews counselor characteristics. In this third major section, it is suggested that one's perceptual framework and ability to communicate empathically are characteristic of specific individuals.

Counselor Characteristics.

It would seem that there are some individuals who have a greater aptitude for counseling, just as there are people who have greater aptitudes in mathematics, mechanics, or medicine. One's aptitude is usually synthesized with knowledge and skills training, and then subsequent performance is evaluated. Frequently, in counselor training, interpersonal skills (Carkhuff, 1969a: 1969b; Ivey, 1971) which can be measured in

specific behavioral terms are taught. Conversely, interpersonal skills may be a function of cognitions or perceptions which are more difficult to quantify.

Loughary (1965) suggested that effective counselors may be individuals who have interests, beliefs, and commitments which enable them to work in understanding and facilitative ways with others. He envisioned six basic qualities characterizing the "effective counselor": A belief in the inherent worth of each individual; a commitment to individual human values; an alertness to the world; open-mindedness; an understanding of self; and a commitment to helping.

Other research also suggests counseling efficacy may be a consequence of one's perceptual organization (Avila & Combs, 1985; Combs, 1969; Combs & Avila, 1985; Combs and Soper, 1963; Deitz, 1975; Hills, 1984; Hills, Handcock, & Davis, 1987; Loughary, 1965; McConnaughy, 1987; Rotter, 1971). Mayton and Anderson (1983) indicated that "good" and "adequate" university peer helpers could not be differentiated. They did note that poor helpers were significantly different from the other helpers. Both "good" and "adequate" helpers were able to demonstrate friendliness, genuineness, and empathy, whereas poor helpers could not.

Loughary's work (1965) identified the requirements of an effective counselor as an understanding of self, a belief in others, an alertness to the world, and a sense of commitment to others and to helping. This provides a striking parallel to Combs and Sopers' theory (1963). In looking at similarities as opposed to differences, it seems Loughary (1965) has identified a major issue in formulating counseling philosophy. The construct of commitment seems to be intertwined with an individual's perceptual

organization. The following subsection on commitment explores the idea that commitment may be one of the factors which separates those students who apply to be peer counselors and those who do not apply. Not applying does not preclude interest nor aptitude. However, the act of applying automatically divides students into two groups. The contention explored in this subsection is that the act of applying is a behavioral act which reflects a particular attitudinal set. This set includes a commitment to helping others and learning more about self through the helping process.

Commitment

The nature of commitment and involvement is often determined by the relationship between values, beliefs, and attitudes. Values are based on attitudes, which in turn are based on beliefs. Beliefs, in turn, evolve as truths which are a function of perceptions of observations and experiences (Evans, 1988). Ultimately, attitudes and beliefs serve as guides to behavior and often determine the extent of a person's involvement and commitment (Nielsen, 1985; Thomas, 1983). For example, if students believe that peer counseling is important, that belief is reflected through the behavior of applying to be a peer counselor. Attitude and behavior constitute a reciprocal relationship.

Kiesler (1971) stated behavior is a result of multiple determiners in which attitude constructs act as guides. People may hold similar beliefs, but because commitment is a continuous variable, individuals vary in the degree they act upon it. The key to long term commitment is the internalization of commitment in such a way that it becomes one's own responsibility (Siegel, 1986). For example, in this study, the difference between Group I

(applicants who are selected as peer counselors) and Group 3 (nonapplying students) may be that Group I students are more interested and more willing to contribute their time to assisting others than Group 3 students. For some students, the issue seems to be not so much one of interest or noninterest, but rather how he/she chooses to priorize and act upon beliefs. Commitment is strengthened if beliefs and behaviors are synthesized (Cialdini, 1984; Nielsen, 1985).

Those who choose to be peer counselors share the common denominator of being commited to helping other students. The author of this dissertation suggests that the unique perceptual organization of self, others, and counseling purpose are intimately connected with commitment. Commitment can be demonstrated behaviorally by applying to be a peer counselor. Commitment may be the thread which ties together those individuals who apply to be peer counselors, as opposed to those who may be interested in peer counseling but do not apply.

A dilemma arises when a variety of students who share an interest in helping (e.g., students in Groups I and 2) apply to be peer counselors. How does the program coordinator select the peer counseling team members? This dilemma serves as the focus of discussion in the next section.

Selection

Just as a successful program requires a committed trainer, staff, administration, and parents, committed students are also required. The literature reveals a number of studies utilizing a variety of selection and training procedures (Allcorn, 1988; Bowman, 1980; Brown, 1974; Campbell, 1983; Canniff, 1983; Carkhuff, 1969a; Carr, 1981; Frank, Ferdinand, &

Bailey, 1975; Frenza, 1985; Hoffman, 1976; McCann, 1975; Sciacca, 1987; Shulman, 1987), as well as a number of studies which did not use selection procedures, but accepted every person who wanted to participate (Delworth, Moore, Mullich, & Leone, 1974; Gray & Tindall, 1974; Varenhorst, 1974). A basic philosophic question arises as to whether the assumption can be made that all people are capable of being helpers? If not, then selection procedures are required which are relevant, meaningful, and valid for helping purposes (Carkhuff, 1969a; Frank, 1984).

In attempting to delineate the most effective selection and training procedures for lay helpers, researchers (Brown, 1974; Carkhuff, 1969a) investigated the respective qualities of professional and paraprofessional counselors. Brown (1974) found that professionals were initially selected on the basis of their intellectual abilities and their training programs were a mix of "art," science, research, and practice. Carkhuff (1969a) stated that counseling effectiveness was often inversely proportional to educational level. The implication is that professionals are either not that effective or their effectiveness is diminished because of incorrect selection and/or training procedures.

A number of studies (Brown, 1974; Frank, 1984; Frenza,1985; Carkhuff,1969a) have suggested that paraprofessionals be selected on the basis of the demonstration of empathy, self-confidence, acceptance of different values, and the ability to deal with others. This writer suggests that these conditions are a necessary but not sufficient condition for counseling efficacy. In order to optimize peer counseling's potential, those students that evidence empathy, self-confidence, acceptance of different values, and the

ability to deal with others could be identified and then given appropriate interpersonal skills training. If selection criteria have to be applied, it seems reasonable to select those individuals who are already inclined to help rather than individuals who are not so inclined.

Evidence (Carkhuff, 1969a; Rogers, 1958; Truax & Carkhuff, 1967; Yalom, 1985) indicates that all effective interpersonal processes share a common set of conditions: empathy, respect for the helpee, and concreteness. Studies (Beutler, 1983; Carkhuff,1969a; Carr, 1981) also indicate that helpers who are similar to helpees in race and social class possess the greatest facility for effecting change. Subsequently, a successful program would probably select helpers representative of the population to be served. These individuals are a part of the helpee's environment, and they can easily enter the milieu of the distressed and establish peer-like relations. The combination of the helper's commitment to helping and social communality are synthesized to provide an effective transition to higher functioning for the person being helped.

Logically, studies of helper characteristics and subsequent selection and training procedures must relate to functioning on indices related to effectiveness in the helping role. Researchers report that studies of trainee characteristics suggest that helper trainees demonstrate more traditionally feminine responses such as caring, nurturing, supporting (Carkhuff,1969a; Carr, 1981; Davis, 1983; Reardon, 1987). As well, original response dispositions become intensified over time and with training. Does one then only select those helpers who have a particular response set; or can "characteristics" and particular responses be taught? For example, a male

student may have particular perceptions about helping, but lack the background, social skills, and communication skills to present himself as an efficacious helper. Is this individual selected?

Delworth and Moore (1974) provide a solution of sorts to the preceding dilemma. Their selection procedure involved pretesting and posttesting applicants on a brief training analog utilizing interpersonal skills. Samuels and Samuels (1975), on the other hand, base their selection procedures on commitment, and then differentiate between those who are motivated and those who are motivated and qualified. They use the Rokeach Value Survey to measure differentiation in the openness or closedness of belief systems. The students are then screened for sensitivity and maturity using a questionnaire based on Carkhuff's (1969a) version of facilitative interpersonal skills.

Samuels and Samuels (1975) are on the right track, but they are using an ipsative test which requires a prescribed number of values to be arranged within a set framework. The test implicitly attributes the same values to all individuals and provides no way of assessing the intensity of each item. In addition, some of the items are so abstract that a person who has not attained formal-operational thinking might have problems with interpretation (Kitwood, 1985). Secondly, Samuels and Samuels are basing their selection on a broad base belief system rather than a belief system linked specifically to helping attitudes. Paradoxically, the closedness of a belief system may allow a teenager to be a helper within his or her group because the group identifies with those who share similar beliefs. Samuels and Samuels' system would screen out this individual.

Sciacca (1987) suggests that selection could utilize any combination of the following: volunteer interest in the program; students recommended by teachers or counselors; a committee of current peer educators and staff who select helpers; student nomination and election; recruitment of the best known, most influential students. Sciacca cautions against involving the habitual substance abuser, and also suggests a male/female distribution representative of different cultures and races.

Frank, Ferdinand, and Bailey (1975) also recommended heterogeneous grouping with individuals evidencing caring and empathy as well as possessing characteristics of humor, flexibility and a positive attitude toward peers, school, supervision, and authority figures. Frank et al. selected their peer counselors after extensive interviews. They did not advise the use of sociometric devices with high school groups because the exercise degenerated into a popularity contest. An interesting sidelight in this study concerning the interaction of trainers and peer counselors was that when difficulties arose between a trainer and peer counselor, difficulties were usually noted the following day between the peer counselor and a helpee. In order to reduce trainer-peer counselor friction, trainers may select, consciously or unconsciously, students who are like them. If teenagers group together because of common beliefs, then it may be possible that trainers (program coordinators) would pick students with whom they would be most comfortable. If this does occur, then a large segment of the school population is not being accessed for the peer programs.

Frank et al. (1975) suggest, among other things, that a good sense of humor and the student's positive reaction to authority be used as selection

criteria. If students can laugh at themselves, this may indicate a certain self-confidence and lack of pretension. The second criterion, reaction to authority, seems to be antithetical to the peer counseling philosophy, and in this writer's opinion, should not be endorsed. Peer counseling works because it empowers students. Frequently, when an adolescent interacts with an adult there is a power dimension involved, regardless of whether the adult wants it to be there or not.

Carr (1981) drew natural leaders from enclaves within the school such as "heads, jocks, preps, new wavers", and from various ethnic-cultural groups. When the students were interviewed, they were asked how they perceived themselves relating to others and how receptive they were to knowing about themselves. An assessment was also made of their learning style. Students with severe emotional problems were dissuaded from participating in the program because peer counseling, although meant to promote individual growth, was not meant to serve as individual or group psychotherapy for more serious disorders.

To summarize, effective selection procedures seem to involve heterogeneous groupings with the selected helpers demonstrating empathy, self-confidence, acceptance of different values, and the ability to deal with others.

Nonselection. In contrast to many of the preceding studies, Varenhorst's model (1974) is representative of a nonselection philosophy. Her model, like others, teaches students to communicate and problem solve. However, she believed that schools could potentially be cold and impersonal, and that loneliness was the major problem for teenagers. Her

philosophy was to access as many students as possible by teaching a series of twelve week courses to groups of 10-12 students, thereby providing a gigantic helping network.

One of the advantages of Varenhorst's model is that she accesses a larger number of students than models which select a set number of students. Philosophically, this makes sense if the intent of the program is to improve the communication skills and enhance the school environment for as many students as possible. This approach would be tantamount to providing a course in peer counseling. Myrick (1987) points out that the state of Florida has approved high school social studies courses entitled Peer Counseling I,II (1st year) and III,IV (2nd year). Conceivably, school administrators who do not have as great an appreciation for the benefits of peer counseling might be reticent about adding another course to an already crowded curriculum.

Another consideration, one previously cited, is that some individuals may not be suited to be peer helpers. Can one justify spending time and energy on individuals who may not benefit from training?

These are thorny issues which may be decided as a function of school administration or the personality of the individual peer coordinator, rather than as a function of a well thought out selection procedure based upon substantive research.

In conclusion, a number of selection procedures have evolved which have sustained varying degrees of success. Self-nomination, sociograms, teacher and counselor nominations, and selection based on leadership abilities seem to be the most frequently chosen models (Campbell,1983).

However, research has not yet revealed one method to be superior to another. In the opinion of this writer, selection appears to be a function of different philosophies. This idea requires further investigation.

Conclusion

A growing body of research indicates that a systematic approach to teaching helping skills will lead to more successful programs (Brammer, 1988; Bowman & Myrick 1980; Campbell, 1983; Carkhuff 1969a; 1969b; Hills, 1984; Hills, Handcock, & Davis, 1987; Kern & Kirby, 1971; McCann, 1975; Truax & Carkhuff, 1967; Vogelsong, 1978). Ideally, a peer training model begins with a predetermined structure and ends with a student-centered agenda wherein a template of interpersonal skills overlays the enthusiasm and motivation of potential helpers.

When the respective philosophies which determine selection procedures are analyzed, the analysis suggests two schools of thought about peer counseling. One is represented by the belief that anyone with appropriate training can be an effective peer helper. The other is that some individuals have a greater aptitude to be peer helpers, and would benefit more from training than students who do not have these aptitudes.

Combs (1982) states that people interact and learn on the basis of feelings, attitudes, beliefs and values. Consequently, if their perceptual organization is understood, there is a greater likelihood that more effective learning situations [e.g., peer programs] can be created. Effective social interaction requires personal involvement and commitment--skills without meaning are not optimally effective. Likewise, Hills, Handcock, and Davis (1987) suggest that interpersonal skills cannot be only learned behaviors,

but must also be construed as meaningful processes; that is, they must evolve from a value system.

Carkhuff (1969a; 1969b), on the other hand, would not necessarily examine attitudes or processing, rather, he would suggest that there are few functional differences between helpers and nonhelpers. He theorizes, as does Ivey (1971), that the process of interpersonal training can be broken down to specific behaviors or skills which can be honed through training and then measured, thus providing a reliable and valid criterion for selection and training effectiveness.

A number of researchers (Calia, 1974; Combs, 1982; Combs, 1969; Combs & Avila, 1985; Cormier, Hackney, & Segrist, 1974; Mahon & Altman, 1975; Senger, 1987; Yalom, 1985) disagree with Carkhuff (1969a) because they do not think that relating to others is a reductionistic exercise whereby specific skills are used at specific times. Combs (1969), Frank (1987), and McConnaughy (1987) postulated that relating to others involves a dynamic process wherein being helpful depends on using the self as a changing, adapting instrument with skills more frequently than not being a function of personal values. Mahon & Altman (1975) summarize the debate in the following:

> It is possible, though quite ironic, to suggest that the work of Carl Rogers can be seen as the source of the notion that effective helping is composed of specific skills. It was Rogers (1962) who proposed that empathy, positive regard, and congruence comprised the essential ingredients for an effective helping relationship. Subsequent researchers (e.g., Truax and Carkhuff, 1967) have attempted to operationalize these qualities in terms of specific behaviors. An important distinction exists here: Rogers was observing that these qualities were present in helping relationships which were generally effective; but he was not saying that these qualities were specific behaviors, that they could be reduced to a skill

> level, or that they could be acquired in short training programs. We wish to emphasize that Rogers (1962) was proposing that it was the feelings or attitudes within the helpers themselves that influenced their effectiveness. What was important was not their level of education, previous training, or techniques, rather it was the quality of the relationship they were able to establish with whomever they were trying to help. In this regard Rogers' ideas are very close to Combs' concept of the "self as instrument". According to Combs the way individuals use their "self" will influence the quality of the relationships they establish with others. Thus, for both Rogers and Combs, operationalizing interpersonal relationships in terms of specific skills for the purpose of training is inadequate or even inappropriate. (p.46)

Mahon and Altman (1975) go on to make the point that if a particular perceptual set is required for behavioral change and the set does not occur, any newly acquired skills can be expected to fade. What is assumed to be learning is only temporary awareness. One of the points of this dissertation is that in order to push skills into long term memory, temporary awareness has to be pushed through "the doors of perception" by a previously defined belief system. Peer counseling with its components of self, interpersonal relationships, and counseling purpose appears to be such a belief system. It is a belief system based on one's esteem of self and others. By helping others, students enrich themselves. The following quotation (Yalom , 1985, p.15) illustrates this point:

> . . . self-actualization or meaning in life can never be attained via deliberate, self-conscious pursuit. I agree with Victor Frankl that these qualities ensue but cannot be successfully pursued: that they are always derivative phenomena which appear on our experiential landscape when we have transcended ourselves, when we have forgotten ourselves in absorption in someone (or something) outside of ourselves.

To conclude, if effective psychotherapy or counseling involves a process (Brammer, 1988; Basham,1986; Bush, Glenwick & Stephens, 1986; Frank, 1987), and if, as research suggests (Beutler, 1983; Rogers, 1958;

Senger,1987; Yalom, 1985), the helper-helpee relationship is important, then a strong case can be made for a process-oriented peer counselling model (Brammer, 1988; Hills, Handcock & Davis, 1987) which utilizes a consistent selection policy. This research explores the value of the selection process being perceptually based.

In order to investigate the validity of a perceptually based selection process, the following research hypotheses were posited.

1. There will be significant positive correlations between the scores of students on the Peer Counselor Perceptual Orientation Scale (PCPOS) and students' scores on the Discrimination and Communication Index (DCI).
2. There will be significant positive correlations between the scores of students on the Peer Counselor Perceptual Orientation Scale (PCPOS) and students' scores on the Interpersonal Reactivity Index (IRI).
3. Group 1 (students selected as peer counselors) and Group 2 (students who applied to be peer counselors and were not selected) will have significantly higher mean scores than Group 3 (students who did not apply to be peer counselors) on the Peer Counseling Perceptual Orientation Scale.
4. There will be significant negative correlations between students' Peer Counselor Perceptual Orientation Scale (PCPOS) scores and the selectors' rating (Counselor Rating Scales) of each applicant for peer counseling (Groups 1 and 2) on the following:

(a) Self-concept,

(b) Understanding of others,

(c) Understanding counseling purpose.

5. There will not be significant differences between the selectors' ratings of Group 1 and Group 2 applicants on the following:

(a) Self-concept,

(b) Understanding of others,

(c) Understanding counseling purpose/task.

6. The combined student score on the Peer Counselor Perceptual Orientation Scale, the Discrimination-Communication Index, and the Interpersonal Reactivity Index, as well as selected demographic variables will predict inclusion in either Group 1 or 2.

CHAPTER 3

Method

The central purpose of this study was to develop and establish the validity of the Peer Counselor Perceptual Orientation Scale. This chapter delineates the procedures used in this investigation.

Sample Description

A total of 765 subjects, aged 11-18, participated voluntarily in this study. They were drawn from 16 elementary, junior high and secondary schools in the following school districts: City of Edmonton Public School District, Strathcona County, St. Albert School District and Fort Saskatchewan Separate School District.

The subjects were divided into three groups. Group 1 consisted of students who applied to be peer counselors and were selected. Group 2 consisted of students who applied to be peer counselors but were not selected. Group 3 was a control group consisting of students who did not apply for selection as peer counselors. Group 3 subjects were drawn from classrooms and were administered the information packet by the participating peer coordinator. Stratified random sampling was used to match Group 3 subjects by grade and sex with Group 1 and Group 2 subjects. Subjects in Division III (grades 7, 8, and 9) were designated as Grade 1 and subjects in Division IV (grades 10,11, and 12) were designated as Grade 2. There was also a peer coordinator group (adult counselors and teachers) included in the study. This group is referred to as Group 4. The coordinators selected the students as peer counselors.

Table 1 displays information about the number of subjects supplying complete data. The subjects also supplied demographic data (Appendix A)

in the following areas: activity hours per week and self-evaluation of academic performance . The data supplied by any student who had previously received peer counseling training or who had been a member of a peer counseling team (N = 8) were not included in the study. In addition, the data supplied by students responding affirmatively to three of the four items assessing socially desirable responses on the Peer Counselor Perceptual Orientation Scale

(N = 35) were not included in the study.

Table 1

Frequency Distributions of Age, Grade, and Sex

Age		Frequency	Percent
11		16	2.70
12		108	18.20
13		149	25.10
14		122	20.50
15		83	14.00
16		57	9.60
17		43	7.20
18		16	2.70
Total		594	100.00
Grade	Value	Frequency	Percent
7--9	1	428	68.80
10--12	2	194	31.20
Total		622	100.00
Sex	Value	Frequency	Percent
Male	1	127	38.20
Female	2	367	61.80
Total		594	100.00

A standard instruction sheet informed the subjects that their participation in the study was voluntary and that their responses were confidential. The respective peer coordinators were informed that when the research was completed the results would be made available to them.

Procedure

Each subject participating in the study was administered a coded envelope containing a research packet. The packet contained a brief description of the study, a demographics sheet and the three test instruments: the Peer Counselor Perceptual Orientation Scale, the Discrimination and Communication Index, and the Interpersonal Reactivity Index. When all instruments were completed (the instruments were completed in a classroom setting), the subject sealed them in the envelope provided and submitted the full packet to the peer coordinator who recorded its number against the subject's name and a corresponding number on a master list. The names and corresponding numbers were required so that group membership could be designated following the peer counselor selection process. After group membership was designated the names were removed from the master list. Only the code numbers and group membership remained, thereby ensuring anonymity and confidentiality.

The peer program coordinators were also administered the research packet. In addition to the three test instruments, their packet also contained the Counselor Rating Scale. The Counselor Rating Scale consisted of three items. The coordinator rated students in Groups 1 and 2 (peer counseling applicants) on these three items which focused on the subjects' sense of self, sense of others, and sense of counseling purpose. For each item, the

counselors' responses were recorded using a five-point Likert-type scale. The respective ends of the scale were labeled "negative" and "positive" (Appendix B).

The peer program coordinators were asked to follow their normal selection procedures. All coordinators had indicated that an interview was a component of their selection process. After interviewing each student, the coordinators were asked to evaluate the student on the three items of the Counselor Rating Scale.

The peer coordinators were also asked to retest 10-15% of the sample within two to three weeks of the original administration of the research materials. The retest procedures were administered before any training had taken place.

To summarize, the program coordinators from the respective schools used their own selection criteria to choose peer counselors. The program coordinators' selection processes automatically determined a student's placement in either Group 1 or 2. Subsequently, the subjects were divided into three groups:

Group 1: Selected peer counselors

Group 2: Nonselected applicants

Group 3: Students who did not apply to be peer counselors. These students were drawn from classrooms in the respective schools.

Prior to selection and training, all groups were administered the research packet. In addition, program coordinators rated all peer counseling applicants in the areas of self concept, understanding of others, and understanding of counseling purpose. Test-retest procedures were

administered within a three week period to approximately 15% of the population.

Measures

The Peer Counselor Perceptual Orientation Scale (PCPOS). The PCPOS was developed for this study and tested in a pilot study. The PCPOS contains 24 items (Appendix C) which were systematically selected to provide representative statements for three constructs. These dimensions were labeled as a sense of self, a sense of others, and a sense of counseling purpose. The PCPOS was derived from an instrument devised by Combs and Soper (1963) who were part of a team of faculty and counseling students from the University of Florida trying to identify helping characteristics and the perceptions which might lead one to believe he/she is a helper. They identified forty-one variables which were eventually narrowed down to twelve dimensions. Combs' and Soper's study, which attempted to quantify these dimensions, involved training raters to delineate the perceptual style of 29 counselors in training as inferred from narratives of four communication vignettes. Combs and Soper established ratings on 12 dimensions which were ranked and compared with the composite effectiveness rank accorded each counselor by his/her instructor. Their data analysis revealed significant correlations (0.58, $p<.01$) on all perceptual dimensions and competencies, indicating clear distinctions could be found between effective and ineffective counselors in perceptual terms (Rowe, Murphy, & DeCsipkes, 1975).

In addition to the 24 items based on Combs and Soper's (1963) study, the PCPOS also contains four lie scale items to correct for a pattern of

social desirability among socially desirable responses. The lie scale items were obtained from Battle's Culture Free Self-Esteem Inventory (1981) which was normed on a population, Grades 3-9 inclusive, thereby providing a suitable readability level. A pilot study (Parr, 1988) involving an abridged version of the measure (10 items) produced a Cronbach's alpha of 0.63 (N=49).

Discrimination and Communication Index. The second measure, entitled a Discrimination and Communication index, was developed by Gray and Tindall (1974). They hypothesized that junior high school students could be trained to learn effective listening and communication skills. The research design utilized six groups of students divided into two sections of three. Both sections consisted of a group trained in the Carkhuff empathy model, a group having had group counseling wherein the groups discussed student interpersonal concerns, and a control group (N=112). The first section of groups was trained one hour a week for 20 weeks. The second section of groups was trained for one hour twice a week for 10 weeks. Analysis of Covariance results (*p<.001) revealed that the Carkhuff groups were more able to discriminate and communicate effective responses when compared with the other groups.

A similar study (McIntyre, Thomas, & Borgen, 1982) used the Discrimination and Communication Index to assess the abilities of subjects (N=19) to discriminate amongst appropriate and inappropriate helping responses. Results of the t-test (*p<.001) revealed that a trained peer counseling group had significantly fewer errors than an untrained group.

In operationalizing their measure, Tindall and Gray (1985) defined discrimination and communication as follows:

> Evaluation of discrimination is accomplished by identifying how accurately the rater was perceiving both the feelings of the helpee statements and the accuracy of the responses of the helper to those feelings. Discrimination is a quality that the rater must have both as a rater and as a helper. The ability to discriminate precedes the ability to provide helping communication and depends upon how accurately each person perceives feeling and meaning. (p.256)

Tindall and Gray's instrument modified the Carkhuff (1969) scale of empathy to situations applicable to the concerns of junior high school students. The instrument (Appendix C) consists of two parts :

1. The students rate as High, Medium or Low each of four responses to an item stem. There are a total of five items. High, Medium and Low are defined as follows:

High - responses rated High (H) include an accurate paraphrase for both feeling and meaning of the helpee's statement.

Medium - responses rated Medium (M) include an accurate paraphrase for either feeling or meaning, but not both.

Low - responses rated Low (L) include neither accurate feeling nor meaning.

Tindall and Gray (1985) reported that the level of responses, that is correct answers to the five item stems, were rated as appropriate by experts. Each correct response in Part I had a value of one point. Each student score was summed. There was a possible total score of 20 points if each item was identified as being correct.

The second part of the measure consisted of a "free-response" segment. The students responded in writing to five problem statements. For the purposes of this study, three independent trained raters who had

established inter-rater reliability (Table 2) rated the written responses for affect and content. Each item received a score of 0 or 1 for affect and 0 or 1 for content. If all responses were rated as appropriate, a student could receive a total score for Affect=5 and Content=5.

Tindall (personal communication, June 18, 1988) indicated that the measure has also been used informally in a number of workshops, however, there were no reliability data collected either in field studies or at the workshops. This instrument appeared to be the most appropriate measure for this study. The following paragraphs address the issues of validity and reliability.

Content and construct validity of the instrument, as well as reliability, are based in part on the studies of McIntyre, Borgen, & Thomas (1982) and Gray and Tindall (1974). In both studies, trained peer counselors were able to either discriminate, or discriminate and communicate effective helping responses at a significantly different level than untrained students.

A second measure of validity in this dissertation was the ratings provided by the trained judges. In effect, the judges were a part of the instrumentation in that they recognized and defined empathy. They were also experts who had attained significant levels of interrater reliability.

The judges were trained by this writer for a period of two hours in order to establish adequate interrater reliability. Following the training period, 33 cases were drawn at random to test interrater reliability. The interrater reliability for content could not be computed because of restricted range. It was not anticipated that the evaluation of content would be such a

clear cut issue. Students supplied answers which either addressed the items or did not address the items.

The data in Table 2 display the interrater reliability of the three raters for affect.

Table 2

Interrater Reliability for Affect

	1Affect	2Affect	3Affect
1Affect	1.00	0.8902**	0.8835**
2Affect	0.8902**	1.000	0.9156**
3Affect	0.8835**	0.9156**	1.000
N=33	1-tailed significance: **p<0.001		

The considerations given to rating affect are reported in Appendix C.

The third indicator of validity involved the third measure-the Interpersonal Reactivity Index (IRI) (Appendix C). One of its four subscales, Perspective-Taking, measures an individual's capacity to cognitively understand the concept of empathy. This subscale of the IRI thereby provided a measure of concurrent validity.

Lastly, temporal reliability was assessed through a test-retest design for 90 subjects over a two to three week testing interval.

Interpersonal Reactivity Index (IRI). The IRI involves a multidimensional approach to empathy. The 28 item, self-report instrument consists of four 7-item subscales, each of which taps some aspect of the global concept of empathy. The first subscale is a Fantasy Scale which taps

subjects' tendencies to transpose themselves imaginatively into the feelings and actions of fictitious characters. Those who score higher on this scale demonstrate a tendency to be more sensitive to others and to be more emotional.

The second subscale, Empathic Concern, assesses "other-oriented" feelings of concern. It assesses the subject's warmth, concern, and compassion for others. Empathic Concern appears to be related to constructs of emotionality and nonselfish concern for others.

The third subscale is Perspective-Taking (PT). It assesses one's tendency to take the point of view of others spontaneously. It has been consistently related to the construct of interpersonal functioning. It also has a consistent but moderate relationship with the construct of self-esteem. In addition, the cognitive ability to judge others is related to perspective-taking, but research (Davis, 1983) has not revealed any significant correlation to intelligence as measured by the Verbal and Quantitative subtests of the SAT and the Vocabulary subtest of the WAIS.

The fourth subscale, Personal Distress, taps self-oriented feelings of anxiety in interpersonal settings. It is associated with fearfulness, uncertainty, and vulnerability. It measure the individuals' feelings of anxiety and discomfort when observing another person's discomfort (Davis, 1983, 1980).

In discussing the psychometric properties of the IRI, Davis (1980) reported that the factor structure underlying these subscales is the same for both sexes. However, like other empathy measures significant sex differences do exist for each subscale. Females score higher on each

subscale than do males. The four subscales all have acceptable internal reliabilities (.71-.77) and test-retest reliabilities (.62-.71) (Davis,1983). Davis (1983) also emphasized that the content domain of each subscale falls within the general definition of empathy as a response to the observed actions of another person.

Analysis

A factor analysis of the Peer Counseling Perceptual Orientation Scale (PCPOS) was done (N=532). A principal components factor analysis followed by varimax rotation generated three factors which accounted for 33.98% of the total variance. The PCPOS was then scored (N=561). Total test statistics revealed a Cronbach's alpha for the composite test of 0.61. Test-retest reliabilities (N=90) for the three subscales and total test respectively were Subscale 1=0.73, Subscale 2=0.63, Subscale 3=0.71, Total Test=0.83.

Hoyt's Estimate of Reliability as well as test-retest reliabilities for the Interpersonal Reactivity Index and Discrimination and Communication Index are reported in Appendix E. Subsequent analyses of the data generated by these instruments are reported in Appendix G.

A correlation matrix was generated which provided a measure of association between all variables. A 2 x 2 x 3 Analysis of Variance (sex by grade by group) was chosen for analysis in order to determine whether there were significant differences between Groups 1, 2, and 3 mean scores on the Peer Counseling Perceptual Orientation Scale. Although the analysis of the PCPOS involved four dependent variables, the combined analysis of the PCPOS, IRI, and DCI involved 11 dependent variables. A significance level

of .05 had been chosen to control for Type 1 error. As a result, the Bonferroni technique (Haase & Ellis, 1987; Kotz & Johnson,1982) was used to determine a testwise significance level of .004. Subsequent main effects were analyzed using one-way Analyses of Variance. The level of significance was set at $p<0.05$ and the Scheffé procedure was chosen for Post Hoc Analyses.

The correlations between students' PCPOS scores (Groups 1 and 2) and the selectors ratings of each applicant on self-concept (CRS1), understanding of others (CRS2), and understanding of counseling purpose (CRS3) were analyzed.

Hotelling's T^2 were chosen to analyze a 2 x 3 matrix (Group by Counselor Rating Scale) in order to determine whether there were significant differences between Groups 1 and 2 (N=330) on the coordinators' ratings of each applicant on three items: a sense of self, sense of others, and sense of counseling purpose.

A question raised in Chapter 1 was whether there would be significant differences between program coordinators' (selectors') PCPOS mean scores and PCPOS group mean scores. One-way Analyses of Variance were chosen for analysis in order to determine whether there were significant differences between Group 4 and Groups 1, 2, and 3 mean scores on the PCPOS.

A Discriminant Function Analysis was used to determine the best linear combination of variables (PCPOS scores, IRI scores, and DCI scores, and demographic data) to predict group membership; that is, a student's selection as a peer counselor.

CHAPTER 4

RESULTS

Introduction

The purpose of this study was to develop and establish the validity of the Peer Counselor Perceptual Organization Scale (PCPOS). In doing so, the relationship between perceptual organization and help-intended behavior, specifically the communication of empathy, was examined. The theoretical frame of reference for the study was drawn from perceptual psychology; that is, the study of psychology which focuses on attitudes, values, and beliefs and their effect upon behavior. The research sought to determine whether certain characteristic ways of perceiving could be demonstrated to be clearly related to the communication of empathy. The combination of perception and ability to communicate empathy were considered to be possible grounds for selection.

In this study, the subjects were asked to complete the Peer Counselor Perceptual Organization Scale (PCPOS), the Interpersonal Reactivity Index (IRI), and the Discrimination and Communication Index (DCI). Peer program coordinators also completed these measures. In addition, the coordinators rated each applicant in Groups 1 and 2 on the Counselor Rating Scale. The analysis of data is as outlined in Chapter 3. The results of this analysis are reported in Chapter 4, while ancillary results from the analysis of the IRI and DCI are reported in Appendix G.

The analysis of the PCPOS required the following steps: factor analysis, scoring, calculation of test-retest coefficients, Analyses of Variance, Post Hoc procedures, Hotelling's T^2, and Discriminant Function Analysis. These steps are reported in Chapter 4 under the following major section

headings: (a) Factor Structure (b) Reliability (c) Validity (d) Discriminant Analysis.

Factor Structure

This section begins with Table 3, which reports the means and standard deviations calculated for the PCPOS. Each of the item numbers in Table 3 corresponds to the numbered item statements (Version 2) listed in the Peer Counseling Perceptual Orientation Scale (Appendix C). Version 2 of the PCPOS has the four lie scale items removed.

The next step in the analysis involved generating a correlation matrix which is displayed in Table 4. The correlation matrix in Table 4 was then subjected to a principal-components factor analysis (N=532) followed by Kaiser's varimax rotation (Tinsley & Tinsley, 1987). These procedures generated three factors which accounted for 33.98% of the total variance. Bartlett's (1950) chi square (X^2 = 2255.76; df = 276; $p<0.0001$), a test which indicates the probability of error in rejecting the null hypothesis of no deviation from an identity matrix, revealed that the data matrix met the minimum requirements for performing a factor analysis. Kaiser's criterion and Cattell's scree test (Tinsley & Tinsley, 1987) were used to determine that a three factor analysis would provide an appropriate interpretation (Appendix F). Varimax rotation produced the Rotated Factor Matrix presented in Table 5. The loadings deemed to be significant (≥ 0.30) for the respective factors are designated by bold print.

TABLE 3

Item Means and Standard Deviations of the

Peer Counseling Perceptual Orientation Scale

Item	Means	Standard Deviations
1	3.18	0.70
2	3.11	0.51
3	3.41	0.59
4	3.03	0.64
5	3.26	0.77
7	3.03	0.73
8	3.34	0.69
9	2.70	0.67
10	3.53	0.56
11	2.72	0.62
12	3.24	0.65
13	2.74	0.57
14	3.08	0.60
15	2.60	0.74
16	3.09	0.64
17	2.84	0.65
18	2.77	0.62
19	3.67	0.53
20	3.50	0.60
21	2.57	0.74
22	3.11	0.67
23	3.09	0.65
24	3.02	0.45

Table 4

Correlation Matrix of the Peer Counseling Perceptual Orientation Scale

Column / Row	1	2	3	4	5	6	7	8	9	10	11	12
1	1.000	0.053	0.165	-0.053	0.093	0.085	0.156	0.161	0.014	0.152	0.001	0.110
2		1.000	0.164	-0.003	0.147	0.152	0.277	0.294	0.133	0.208	0.069	0.255
3			1.000	0.092	0.210	0.146	0.246	0.235	0.111	0.285	0.027	0.222
4				1.000	0.055	0.064	0.116	0.116	0.063	0.056	-0.034	0.085
5					1.000	0.095	0.227	0.253	-0.008	0.209	-0.107	0.248
6						1.000	0.136	0.273	0.046	0.135	-0.027	0.246
7							1.000	0.304	0.148	0.195	0.045	0.198
8								1.000	0.203	0.383	-0.050	0.491
10									1.000	0.208	0.042	0.176
11										1.000	0.035	0.362
12											1.000	-0.080
												1.000

	13	14	15	16	17	18	19	20	21	22	23	24
1	0.165	0.031	0.177	0.078	0.188	0.094	0.045	0.142	0.084	0.191	0.089	0.043
2	0.168	0.192	0.159	0.181	0.154	0.191	0.082	0.223	0.051	0.260	0.171	0.115
3	0.189	0.078	0.130	0.122	0.212	0.173	0.136	0.182	0.133	0.265	0.183	0.021
4	-0.007	-0.025	0.019	-0.006	0.006	0.006	0.036	0.093	0.008	0.073	0.008	0.024
5	0.101	-0.005	0.215	0.071	0.172	0.237	0.051	0.249	0.043	0.242	0.081	0.013
6	0.067	0.077	0.098	0.023	0.099	0.195	0.136	0.253	0.001	0.237	0.181	0.062
7	0.139	0.207	0.105	0.173	0.178	0.129	0.086	0.230	0.117	0.245	0.205	0.084
8	0.122	0.147	0.213	0.109	0.136	0.337	0.158	0.455	0.102	0.547	0.365	0.148
9	0.134	0.265	0.010	0.090	0.227	0.063	0.189	0.137	0.056	0.296	0.422	0.270
10	0.136	0.259	0.145	0.151	0.228	0.266	0.207	0.329	0.125	0.359	0.350	0.185
11	0.107	0.051	0.023	0.102	0.137	0.013	0.028	-0.039	-0.001	-0.002	-0.008	0.059
12	0.111	0.014	0.234	0.130	0.161	0.437	0.223	0.494	0.040	0.500	0.357	0.158
13	1.000	0.080	0.019	0.096	0.360	0.062	0.023	0.164	0.174	0.127	0.160	0.174
14		1.000	-0.059	0.175	0.172	0.067	0.196	0.074	0.048	0.215	0.278	0.198
15			1.000	-0.018	0.138	0.251	0.041	0.203	-0.060	0.176	0.021	0.051
16				1.000	0.018	0.062	0.085	0.113	0.047	0.210	0.107	0.125
17					1.000	0.095	0.006	0.172	0.164	0.180	0.216	0.145
18						1.000	0.116	0.274	0.061	0.281	0.186	0.130
19							1.000	0.257	0.025	0.219	0.187	0.152
20								1.000	0.017	0.426	0.317	0.222
21									1.000	0.091	0.100	0.041
22										1.000	0.452	0.224
23											1.000	0.270
24												1.000

Table 5
Rotated Factor Matrix

Items*	h^2	Factor 1	Factor 2	Factor3
1	0.24	0.21	-0.11	**0.43**
2	0.23	0.32	0.18	**0.30**
3	0.30	0.34	0.03	**0.43**
4	0.04	0.18	0.03	-0.07
5	0.36	**0.51**	-0.20	0.24
6	0.19	**0.43**	0.10	0.00
7	0.27	0.30	0.15	**0.40**
8	0.55	**0.69**	0.26	0.12
9	0.46	0.04	**0.67**	0.12
10	0.38	**0.43**	0.35	0.26
11	0.17	-0.22	0.11	**0.33**
12	0.58	**0.72**	0.25	0.03
13	0.43	0.00	0.11	**0.65**
14	0.40	-0.03	**0.61**	0.16
15	0.32	**0.49**	-0.24	0.15
16	0.15	0.05	0.26	0.28
17	0.48	0.07	0.15	**0.67**
18	0.35	**0.59**	0.03	0.07
19	0.25	0.24	**0.43**	-0.11
20	0.48	**0.64**	0.13	0.08
21	0.18	-0.03	0.06	**0.42**
22	0.55	**0.59**	0.42	0.15
23	0.51	0.30	**0.64**	0.12
24	0.29	0.07	**0.53**	0.10
% of Common Variance		43.63	30.18	26.18
% of Total Variance		14.83	10.26	8.90

*Each of these item numbers corresponds to the numbered item statements (Version 2) listed in the Peer Counseling Perceptual Orientation Scale (Appendix C).

To summarize, a principal-components analysis followed by Kaiser's varimax rotation generated three factors which accounted for 33.98 % of the variance. Factor 1, which accounted for 14.83 % of the variance, loaded on 9 items, and was labeled Helping Orientation. This factor corresponded to the a priori construct, counseling purpose/task, identified in Combs and Soper (1963) and Combs (1969).

Factor 2, labeled Self Orientation, loaded on 5 items and accounted for 10.26% of the variance. Self Orientation corresponded to the a priori construct, a sense of self, identified in Combs and Soper (1963) and Combs (1969).

Factor 3, labeled People Orientation, accounted for 8.90% of the variance and loaded on 8 items. This factor corresponded to the a priori construct, a sense of others, identified in Combs and Soper (1963) and Combs (1969).

Of the 24 items, only two items, 4 and 16, did not load 0.30 or higher:
Item 4: I am sensitive to how things look to other people, and
Item 16: I know my strengths and weaknesses.

Item 4 may have been a weaker item because it lends itself to a dichotomous interpretation. Some subjects may have viewed a sensitivity to others' opinions as a strength, while others may have viewed it as a weakness. . Item 16, on the other hand, loaded almost equally on Self Orientation and People Orientation. This dual loading indicated a trend for this item but there was insufficient strength to load significantly on one factor. In sum, 22 items were divided into 3 subscales.

Once the three subscales were established through factor analysis, the PCPOS could be scored (N=561). The reliabilities were calculated and analyzed. A discussion of reliability follows in the next section.

Reliability

The reliability of the PCPOS was assessed through Hoyt's Estimate of Reliability and Test-retest coefficients. Together they provided an indication of the consistency of the PCPOS.

Hoyt's Estimate of Reliability for the PCPOS subscales and Cronbach's alpha for the total test were as follows: Helping Orientation (0.77); Self Orientation (0.59); People Orientation (0.57), PCPOS Total Test (Cronbach alpha, 0.61). The subscale estimates of reliability indicated that the items demonstrated a tendency to measure the same thing, while the Total Test coefficient revealed that the overall consistency of the test was acceptable. (Cronbach alpha takes into consideration the fact that the PCPOS Total Test is comprised of 3 subscales which are moderately correlated.) The test-retest reliabilities (N=91) for Helping Orientation (0.73), Self Orientation (0.63), People Orientation (0.71), and Total Test (0.83) were acceptable.

Table 6 reports the factor loadings and item subtest correlations generated by the scoring program for each item in the three factors. For example, Item 1 correlates 0.59 with Factor 1 (HELPING ORIENTATION) and 0.61 with the total test. Table 7 reports the item statistics for the three factors while the total test statistics are reported in Table 8. Although Table 7 and Table 3 both report item means and standard deviations, Table 7 also

reports the division of items into subscales, the item statements, and does not report items 4 and 16.

Table 6

Peer Counselor Perceptual Organization Scale

Factor Loadings and Correlations

Item Statement	Loading	Correlations Subtest	Total test
Factor 1 - HELPING ORIENTATION			
I would go out of my way to help somebody	.72	0.59	0.61
Helping other people is very important to me	.69	0.61	0.65
I feel a great need to help my friends when they have problems	.64	0.56	0.59
Helping people enriches my life	.59	0.56	0.66
I often change my plans to help others	.59	0.42	0.43
I like to control other people	.51	0.31	0.40
In real life, I take care of myself first, then I help others	.49	0.30	0.36
People are worthwhile	.43	0.42	0.57
If a person is having problems, he/she should be helped	.43	0.31	0.40
Factor 2 - SELF ORIENTATION			
I make the world a better place	.67	0.43	0.42
When I help someone, I make the world a better place	.64	0.43	0.53
I like myself most of the time	.61	0.34	0.34
People like being with me	.53	0.30	0.34
The future is important	.43	0.24	0.36
Factor 3 - PEOPLE ORIENTATION			
People respect and care for others	.67	0.39	0.46
People are dependable	.65	0.39	0.37
People are not friendly	.43	0.33	0.47
I like things and events more than people	.43	0.23	0.33
People tend not to reach out to others	.42	0.21	0.29
I can show my feelings	.40	0.30	0.47
People are usually able to deal with events in their lives	.33	0.13	0.15
I understand people	.30	0.26	0.44

Table 7

Peer Counselor Perceptual Organization Scale Item Statistics

Item Statement	Item Statistics Means	S. D.
Subscale 1 - HELPING ORIENTATION		
I would go out of my way to help somebody	3.23	0.68
Helping other people is very important to me	3.34	0.70
I feel a great need to help my friends when they have problems	3.49	0.63
Helping people enriches my life	3.11	0.68
I often change my plans to help others	2.78	0.63
I like to control other people	3.24	0.80
In real life, I take care of myself first, then I help others	2.57	0.78
People are worthwhile	3.53	0.57
If a person is having problems, he/she should be helped	3.49	0.65
Subscale 2 - SELF ORIENTATION		
I make the world a better place	2.66	0.74
When I help someone, I make the world a better place	3.08	0.66
I like myself most of the time	3.07	0.61
People like being with me	2.99	0.53
The future is important	3.67	0.57
Subscale 3 - PEOPLE ORIENTATION		
People respect and care for others	2.85	0.65
People are dependable	2.74	0.59
People are not friendly	3.39	0.61
I like things and events more than people	3.18	0.71
People tend not to reach out to others	2.55	0.76
I can show my feelings	3.04	0.72
People are usually able to deal with events in their lives	2.72	0.63
I understand people	3.09	0.52

Table 8

Peer Counseling Perceptual Orientation Scale Subscale and Total Test Statistics

Subscale	N	Mean	S.D.	Items	Range of Scores	Hoyt's Reliability	SEM+
PCPOS 1	561	28.76	3.62	9.00	12 - 36	0.77	1.66
PCPOS 2	561	15.47	1.93	5.00	8 - 20	0.59	1.10
PCPOS 3	561	23.56	2.59	8.00	13 - 31	0.57	1.60
PCPOS T	561	67.79	6.30	22.00	40 - 84	0.80	2.78

*Cronbach alpha for the composite test = 0.61

+SEM - Standard Error of Measurement

Following these procedures, a correlation matrix, presented in Appendix H, was generated which provided a measure of association between all variables. An analysis of the matrix provides a vehicle to study the criterion validity of the PCPOS.

Validity

In order to investigate the validity of a perceptually based selection process, it was hypothesized that there would be significant correlations between the scores of students on the Peer Counselor Perceptual Orientation Scale (PCPOS) and students' scores on the Discrimination - Communication Index (DCI). Because of the large sample size, a fairly small correlation could be significant, but the relationship may not have any practical significance. Therefore, only correlation coefficients 0.30 or higher were considered to be practically significant. The correlations displayed in

Table 9 reveal that there were no substantive correlations between the scores of students on the Peer Counselor Perceptual Orientation Scale and students' scores on the Discrimination -Communication Index.

Table 9

Correlation Matrix of the Peer Counselor Perceptual Orientation Scale and the Discrimination and Communication Index.

	PCPOS1	PCPOS2	PCPOS3	PCPOS Total
DCP1	0.14	0.12	0.06	0.14
AFFECT	0.17	0.10	0.11	0.17
CONTENT	0.07	0.03	0.13	0.10

It was also hypothesized that there would be significant correlations between the scores of students on the Peer Counselor Perceptual Orientation Scale and students' scores on the Interpersonal Reactivity Index The correlations are displayed in Table 10. Only those correlation coefficients which were 0.30 or higher were considered to be practically significant. As PCPOS1 (Helping Orientation) scores increased, IRI1 (Fantasy), IRI2 (Empathic Concern), and IRI3 (Perspective Taking) scores increased. There was also a positive correlation between PCPOS3 (People Orientation) and IRI2 (Empathic Concern) scores. Further, there were positive correlations between PCPOST (Total Test), IRI2 (Empathic Concern), and IRI3 (Perspective Taking) scores.

Table 10

Correlation Matrix of the Peer Counselor Perceptual Orientation Scale and the Interpersonal Reactivity Index

	PCPOS1	PCPOS2	PCPOS3	PCPOS Total
IRI1	0.32	0.14	0.08	0.26
IRI2	0.58	0.28	0.31	0.55
IRI3	0.46	0.19	0.29	0.44
IRI4	0.01	-0.10	0.00	-0.03

The next step in the analysis involved checking on the significance of mean differences.

Analyses of Variance. A 2 x 2 x 3 Analysis of Variance (sex by grade by group) was chosen for analysis in order to determine whether there were significant differences between Groups 1, 2, and 3 mean scores on the Peer Counseling Perceptual Orientation Scale. Although the analysis of the PCPOS involved 4 dependent variables, the combined analysis of the PCPOS, IRI, and DCI involved 11 dependent variables. A significance level of $p<0.05$ was chosen to control for Type 1 error. As a result, The Bonferroni technique (Haase & Ellis, 1987; Kotz & Johnson, 1982) was used to determine a testwise significance level of $p<0.0045$. Subsequent main effects were analyzed using one-way Analyses of Variance. The level of significance was set at $p<0.0045$ and the Scheffé procedure was chosen for Post Hoc Analyses.

The means and standard deviations used in the analyses were previously reported in Table 8. Table 11 reports a summary of the Analysis of Variance of PCPOS 1 (HELPING ORIENTATION). Two main effects were significant: Sex ($F=37.16$; $df= 1, 549$; $p<0.001$); Group ($F=39.07$; $df= 2, 549$; $p<0.001$). In the first main effect, sex, female subjects scored significantly higher than males.

The second main effect showed that subjects in this study scored differentially by group. A Oneway Analysis of Variance (Table 12) ($F=49.35$; $df= 2, 558$; $p<0.001$) was performed in order to analyze the differences in group means. A Post Hoc Analysis, also presented in Table 12, was done using the Scheffé procedure for this main effect. The mean scores of Groups 1 and 2 were significantly different ($p<0.05$) from Group 3 mean scores.

Table 11
Analysis of Variance of PCPOS 1 (HELPING ORIENTATION) by Sex, Grade, and Group

Source of Variation	DF	MS	F	p
Sex	1	386.94	37.16	.001
Grade	1	1.28	0.12	.726
Group	2	406.78	39.07	.001
Sex by Grade	1	33.56	3.22	.073
Sex by Group	2	28.41	2.7	.066
Grade by Group	2	24.10	2.31	.100
Sex by Grade by Group	2	6.82	0.66	.520
Residual	549	10.41		
Total	560			

Table 12

Analysis of Variance of PCPOS 1 (HELPING ORIENTATION) by Group

Source of Variation	DF	MS	F
Between Groups	2	552.83	49.35
Within Groups	558		
Total	560		

Group	N	Mean	Standard Deviation
Grp 1	141	30.36	2.74
Grp 2	168	29.71	3.12
Grp 3	252	27.23	3.78
Total	561	28.76	3.62

Scheffé Analysis of PCPOS1 Group Means

Groups	Means	3	2	1
Grp 3	27.23			
Grp 2	29.71	*		
Grp 1	30.36	*		

Group 3 - Students who did not apply to be peer counselors

Group 2 - Students who applied but who were not selected

Group 1 - Students who applied to be peer counselors and were selected.

Table 13 reports a summary of the Analysis of Variance of PCPOS 2 (SELF ORIENTATION). The main effect, group ($F=12.13$; $df= 2, 549$; $p<0.001$), was significant. A Oneway Analysis of Variance (Table 14) ($F=10.97$; $df= 2, 558$; $p<0.001$) was performed in order to analyze the differences in group means. A Post Hoc Analysis, also presented in Table 14, was done using the Scheffé procedure for this main effect. The mean scores of Groups 1 and 2 were significantly different ($p<0.05$) from Group 3 mean scores.

Table 13
Analysis of Variance of PCPOS 2 (SELF ORIENTATION) by Sex, Grade, and Group

Source of Variation	DF	MS	F	p
Sex	1	7.61	2.14	.144
Grade	1	2.54	.71	.398
Group	2	43.06	12.13	.001
Sex by Grade	1	1.25	.35	.553
Sex by Group	2	7.45	2.1	.123
Grade by Group	2	0.45	.13	.881
Sex by Grade by Group	2	11.86	3.34	.036
Residual	549	3.55		
Total	560			

Table 14

Oneway Analysis of Variance of PCPOS 2 (SELF ORIENTATION) by Group

Source of Variation	DF	Mean Square	F
Between Groups	2	39.30	10.97
Within Groups	558	3.58	
Total	560		

Group	N	Mean	Standard Deviation
Grp 1	141	15.92	1.69
Grp 2	168	15.69	1.95
Grp 3	252	15.06	1.96
Total	561	15.47	1.93

Scheffe Analysis of PCPOS 2 Group Means

Groups	Means	3	2	1
Grp 3	15.06			
Grp 2	15.69	*		
Grp 1	15.92	*		

Group 3 - Students who did not apply to be peer counselors

Group 2 - Students who applied but who were not selected

Group 1 - Students who applied to be peer counselors and were selected.

Table 15 reports a summary of the Analysis of Variance of PCPOS 3 (PEOPLE ORIENTATION). The main effect, group, was significant ($F=13.65$; $df= 2, 549$; $p<0.001$). A Oneway Analysis of Variance (Table 16) ($F=16.36$; $df= 2, 558$; $p<0.001$) was performed in order to analyze the differences in group means. A Post Hoc Analysis, also presented in Table 16, was done using the Scheffé procedure for this main effect. The mean scores of Groups 1 and 2 were significantly different ($p<0.05$) from Group 3 mean scores.

Table 15
Analysis of Variance of PCPOS 3 (PEOPLE ORIENTATION) by Sex, Grade, and Group

Source of Variation	DF	Mean Square	F	p
Sex	1	25.71	4.11	.043
Grade	1	30.26	4.83	.028
Group	2	85.49	13.65	.001
Sex by Grade	1	11.82	1.89	.170
Sex by Group	2	10.62	1.70	.185
Grade by Group	2	7.10	1.13	.323
Sex by Grade by Group	2	5.81	.93	.396
Residual	549	6.26		
Total	560			

Table 16

Oneway Analysis of Variance of PCPOS 3 (PEOPLE ORIENTATION) by Group

Source of Variation	DF	MS	F
Between Groups	2	104.28	16.36
Within Groups	558	16.38	
Total	560		

Group	N	Mean	Standard Deviation
Grp 1	141	24.28	2.02
Grp 2	168	23.96	2.57
Grp 3	252	22.90	2.74
Total	561	23.56	2.59

Scheffé Analysis of PCPOS 3 Group Means

Groups	Means	3	2	1
Grp 3	22.90			
Grp 2	23.96	*		
Grp 1	24.28	*		

Group 3 - Students who did not apply to be peer counselors

Group 2 - Students who applied but who were not selected

Group 1 - Students who applied to be peer counselors and were selected.

Table 17 reports a summary of the Analysis of Variance of PCPOS TOTAL TEST. Two main effects were significant: Sex ($F=27.84$; $df= 1, 549$; $p<0.001$); Group ($F=38.94$; $df= 2, 549$; $p<0.001$). In the first main effect, sex, female subjects scored significantly higher than males.

The second main effect showed that subjects in this study scored differentially by group. A Oneway Analysis of Variance (Table 18) ($F=46.80$; $df= 2, 558$; $p<0.001$) was performed in order to analyze the differences in group means. A Post Hoc Analysis, also presented in Table 18, was done using the Scheffé procedure for this main effect. The mean scores of Groups 1 and 2 were significantly different ($p<0.05$) from Group 3 mean scores.

Table 17
Analysis of Variance of PCPOS TOTAL TEST by Sex, Grade, and Group

Source of Variation	DF	MS	F	p
Sex	1	483.28	14.58	.001
Grade	1	7.71	.23	.63
Group	2	1290.88	38.94	.001
Sex by Grade	1	107.09	3.23	.07
Sex by Group	2	27.05	.82	.44
Grade by Group	2	56.63	1.71	.18
Sex by Grade by Group	2	50.31	1.52	.22
Residual	549	33.15		
Total	560			

Table 18

Analysis of Variance of PCPOS TOTAL TEST by Group

Source of Variation	DF	Mean Square	F
Between Groups	2	1598.80	46.80
Within Groups	558		
Total	560		

Group	N	Mean	Standard Deviation
Grp 1	141	70.56	4.76
Grp 2	168	69.36	5.72
Grp 3	252	65.19	6.45
Total	561	67.79	6.30

Scheffé Analysis of PCPOS TOTAL TEST Group Means

Groups	Means	3	2	1
Grp 3	65.19			
Grp 2	69.36	*		
Grp 1	70.56	*		

Group 3 - Students who did not apply to be peer counselors

Group 2 - Students who applied but who were not selected

Group 1 - Students who applied to be peer counselors and were selected.

The preceding analyses focused on the 2 x 2 x 3 Analysis of Variance of the Peer Counseling Perceptual Organization Scale. The following section focuses on the concurrent validity of the PCPOS and the CRS.

Concurrent validity of the PCPOS and the CRS. This section of the study reports the analysis of the correlations (Appendix H) between students' PCPOS scores (Groups 1 and 2) and the selectors' ratings of each applicant on self-concept (CRS1), understanding of others (CRS2), and understanding of counseling purpose (CRS3). Group 3 subjects were not included in this part of the analysis because they were not rated by the program coordinators. Only students who applied to be peer counselors (Groups 1 and 2) were rated on the Counselor Rating Scales.

The negative correlations between Groups and CRS1 (-0.33), CRS2 (-0.35), and CRS3 (-0.35) indicated that as subjects' CRS ratings went up, group placement went down. Group 1 received higher ratings across all three Counselor Rating Scales than subjects in Group 2. Further, in order to determine whether Group 1 subjects had significantly higher mean scores than Group 2 subjects on the Counselor Rating Scales, an additional analysis was done.

Hotelling's T^2 were chosen to analyze a 2 x 3 matrix (Group by Counselor Rating Scale) in order to determine whether there were significant differences between Groups 1 and 2 (N=330) on the coordinators' ratings of each applicant on three items: Self-concept (CRS1), understanding of others (CRS2), and understanding of counseling purpose (CRS3). The sample means are reported in Table 19.

Table 19

CRS Subscale Means

Counselor Rating Scales	Group 1 (N=157) Means	Group 2 (N=173) Means
CRS1 (Self)	4.14	3.45
CRS2 (Others)	4.26	3.61
CRS3 (Purpose)	4.13	3.42

The two-sample T^2 statistic had the value of 65.63; the associated F was 21.74, with degrees of freedom of 3 and 326. Under the hypothesis of equal mean vectors, the probability of exceeding such an F value would be less than $p<0.001$. Consequently, the null hypothesis was rejected at the $p<0.05$ level.

Post hoc procedures, protected univariate t tests (Table 20), revealed that Groups 1 and 2 were significantly different across all three rating scales: CRS1 ($F=13.54$; df=3, 326; $p<0.001$) CRS2 ($F=15.34$; df=3, 326; $p<0.001$); CRS3 ($F= 15.50$; df=3, 326; $p<0.001$). Group 1 (selected applicants) received significantly higher ratings than did Group 2 (subjects who applied to be peer counselors but who were not picked).

Another question related to validity raised in Chapter 1 was whether there would be significant differences between selectors' (Group 4) PCPOS mean scores and PCPOS group mean scores. The following section reports the results of the analysis resulting from this question.

Table 20

Protected Univariate t tests for Hotelling's T^2 of Counselor Rating Scales (CRS) by Group (1, 2)

Subscale	T^2	F	p
CRS 1	40.88	13.54	.001
CRS 2	46.30	15.34	.001
CRS 3	46.78	15.50	.001

Analysis of Variance of the PCPOS by Group (1—4). Oneway Analyses of Variance were chosen for analysis in order to determine whether there were significant differences between Group 4 (selectors) and Groups 1, 2, and 3 mean scores on the PCPOS.

Table 21 reports the results of the Oneway Analysis of Variance of PCPOS1 ($F=39.25$; $df= 3, 584$; $p<0.001$) performed in order to analyze the differences in group means. A Post Hoc Analysis, also presented in Table 21, was done using the Scheffé procedure for this main effect. The mean scores of Groups 1 and 2 were significantly different ($p<0.05$) from Group 4 mean scores.and Group 3 mean scores.

Table 22 reports the results of the Oneway Analysis of Variance of PCPOS2 ($F=11.59$; $df= 3, 584$; $p<0.001$) performed in order to analyze the differences in group means. A Post Hoc Analysis, also presented in Table 22, was done using the Scheffé procedure for this main effect. The mean scores of Groups 1, 2 and 4 were significantly different ($p<0.05$) from Group 3 mean scores.

Table 21

Analysis of Variance of PCPOS 1 (HELPING ORIENTATION) by Group (1-4)

Source of Variation	DF	MS	F
Between Groups	3	491.70	39.25
Within Groups	584		
Total	587		

Group	N	Mean	Standard Deviation
Grp 1	141	33.89	2.97
Grp 2	168	33.17	3.36
Grp 3	252	30.50	3.99
Grp 4	27	29.48	2.71
Total	588	32.03	3.62

Scheffé Analysis of PCPOS1 Group Means

Groups	Means	4	3	2	1
Grp 4	29.48				
Grp 3	30.50				
Grp 2	33.17	*	*		
Grp 1	33.89	*	*		

Group 4 - Program coordinators (Selectors)

Group 3 - Students who did not apply to be peer counselors

Group 2 - Students who applied but who were not selected

Group 1 - Students who applied to be peer counselors and were selected.

Table 22

Analysis of Variance of PCPOS 2 (SELF ORIENTATION) by Group (1-4)

Source of Variation	DF	MS	F
Between Groups	3	40.96	11.59
Within Groups	584		
Total	587		

Group	N	Mean	Standard Deviation
Grp 1	141	15.92	1.69
Grp 2	168	15.69	1.95
Grp 3	252	15.06	1.96
Grp.4	27	16.78	1.58
Total	588	15.53	1.93

Scheffé Analysis of PCPOS2 Group Means

Groups	Means	3	2	1	4
Grp 3	15.06				
Grp 2	15.69	•			
Grp 1	15.92	•			
Grp 4	16.78	•			

Group 4 - Program coordinators (Selectors)

Group 3 - Students who did not apply to be peer counselors

Group 2 - Students who applied but who were not selected

Group 1 - Students who applied to be peer counselors and were selected.

Table 23 reports the results of the Oneway Analysis of Variance of PCPOS3 ($F=63.26$; $df= 3, 584$; $p<0.001$) performed in order to analyze the differences in group means. A Post Hoc Analysis, also presented in Table 23, was done using the Scheffé procedure for this main effect. The mean scores of Groups 1, 2 and 4 were significantly different ($p<0.05$) from Group 3 mean scores. Group 4 mean scores were also significantly different ($p<0.05$) from Group 1 and 2 mean scores.

Table 24 reports the results of the Oneway Analysis of Variance of the PCPOS Total Test ($F=36.49$; $df= 3, 584$; $p<0.001$) performed in order to analyze the differences in group means. A Post Hoc Analysis, also presented in Table 24, was done using the Scheffé procedure for this main effect. The mean scores of Groups 1, 2 and 4 were significantly different ($p<0.05$) from Group 3 mean scores.

Table 23
Analysis of Variance of PCPOS 3 (PEOPLE ORIENTATION) by Group (1-4)

Source of Variation	DF	MS	F
Between Groups	3	323.13	63.26
Within Groups	584		
Total	587		

Group	N	Mean	Standard Deviation
Grp 1	141	20.75	1.81
Grp 2	168	20.50	2.37
Grp 3	252	19.63	2.44
Grp 4	27	25.85	1.83
Total	588	20.43	2.59

Scheffé Analysis of PCPOS3 Group Means

Groups	Means	3	2	1	4
Grp 3	19.63				
Grp 2	20.50	*			
Grp 1	20.75	*			
Grp 4	25.85	*	*	*	

Group 4 - Program coordinators (Selectors)

Group 3 - Students who did not apply to be peer counselors

Group 2 - Students who applied but who were not selected

Group 1 - Students who applied to be peer counselors and were selected.

Table 24
Analysis of Variance of PCPOS TOTAL TEST by Group (1-4)

Source of Variation	DF	MS	F
Between Groups	3	1226.35	36.49
Within Groups	584		
Total	587		

Group	N	Mean	Standard Deviation
Grp 1	141	70.56	4.76
Grp 2	168	69.36	5.72
Grp 3	252	65.19	6.45
Grp 4	27	72.11	4.65
Total	588	67.99	6.30

Scheffé Analysis of PCPOS TOTAL Group Means

Groups	Means	3	2	1	4
Grp 3	65.19				
Grp 2	69.36	*			
Grp 1	70.56	*			
Grp 4	72.11	*			

Group 4 - Program coordinators (Selectors)

Group 3 - Students who did not apply to be peer counselors

Group 2 - Students who applied but who were not selected

Group 1 - Students who applied to be peer counselors and were selected.

The last procedure in the analysis involved Discriminant Function Analysis, a measure of predictive validity.

Discriminant Function Analysis

Discriminant Function Analysis provides a way of studying the extent to which multiple predictor variables are related to a categorical criterion, that is, group membership (Betz, 1987). It was hypothesized that the combined subject scores on the Peer Counselor Perceptual Orientation Scale, the Discrimination-Communication Index, and the Interpersonal Reactivity Index would predict inclusion in either Group 1 or 2. Subsequently, Discriminant Function Analysis was used to determine the best linear combination of variables (PCPOS scores, IRI scores, DCI scores, and demographic data) to predict group membership; that is, a student's selection as a peer counselor.

In order to derive and test such an equation, the sample was divided into two subsamples, one being used to derive an equation and the other to crossvalidate it. Stepwise discriminant procedures were used in each analysis. The results of the analyses and the crossvalidated classification rates are presented in the following order:

(1) Group 1 versus Group 2 versus Group 3

(2) Group 1+Group 2 versus Group 3

(3) Group 1 versus Group 2

(4) Group 1 versus Group 2 (PCPOS being the only predictor).

Group 1 versus Group 2 versus Group 3. Table 25 reports the means and standard deviations of Groups 1, 2, and 3 for each variable included in the analysis, and Table 26 reports the pooled within-groups correlation matrix for the 13 variables submitted to the stepwise discriminant procedure.

Table 25

Means and Standard Deviations of Groups 1, 2, and 3

MEANS

GRP	SEX	HOURS	STUDEV	DCP1	AFF	CONT	IRI1	IRI2	IRI3	IRI4	PCPS1	PCPS2	PCPS3
1	1.60	6.53	3.93	9.85	1.77	4.97	26.20	27.68	25.12	18.13	30.43	15.75	24.04
2	1.81	5.49	3.88	8.40	1.60	4.94	27.16	28.49	25.51	18.71	30.10	15.789	23.77
3	1.49	5.50	3.59	8.81	1.32	4.89	23.01	25.32	22.57	18.52	27.13	15.04	22.90
TOTAL	1.62	5.76	3.76	8.95	1.52	4.93	25.05	26.86	24.09	18.48	28.85	15.44	23.45

STANDARD DEVIATIONS

GRP	SEX	HOURS	STUDEV	DCP1	AFF	CONT	IRI1	IRI2	IRI3	IRI4	PCPS1	PCPS2	PCPS3
1	0.49	4.55	0.64	2.72	1.42	0.16	5.37	4.45	4.99	3.82	2.73	1.81	2.02
2	0.39	3.71	0.71	2.54	1.39	0.31	4.59	3.70	4.67	3.75	2.97	1.78	2.69
3	0.50	5.01	0.76	2.81	1.30	0.43	5.84	4.81	4.87	4.88	3.86	2.10	2.78
TOTAL	0.49	4.55	0.74	2.75	1.37	0.35	5.68	4.63	5.02	4.30	3.69	1.97	2.62

Table 26

Pooled Within-Groups Correlation Matrix

	SEX	HR	STDEV	DCP1	AFFECT	CONT	IRI1	IRI2	IRI3	IRI4	PCPOS1	PCPOS2	PCPOS3
SEX	1.00												
HOURS	-0.07	1.00											
STDEV	-0.03	0.07	1.00										
DCP1	0.07	0.06	0.09	1.00									
AFFECT	0.14	0.09	0.13	-0.01	1.00								
CONT	-0.01	0.053	0.07	0.07	0.05	1.00							
IRI1	0.12	-0.01	0.11	-0.00	0.06	-0.10	1.00						
IRI2	0.27	0.03	0.13	0.12	0.21	-0.01	0.38	1.00					
IRI3	0.19	0.02	0.05	0.15	0.11	-0.02	0.17	0.54	1.00				
IRI4	0.12	-0.09	-0.17	-0.05	-0.02	-0.11	-0.09	0.09	-0.05	1.00			
PCPOS1	0.22	0.01	-0.02	0.07	0.10	0.01	0.24	0.55	0.43	0.03	1.00		
PCPOS2	-0.05	0.04	0.12	0.08	0.02	0.05	0.09	0.23	0.12	-0.07	0.36	1.00	
PCPOS3	0.12	-0.03	0.05	0.06	0.08	0.02	0.03	0.31	0.24	-0.02	0.44	0.29	1.00

The series of variables selected through the stepwise discriminant procedure are reported in Table 27, while Table 28 contains the results of the Discriminant Analysis.

Table 27

Summary Table of Stepwise Discriminant Procedures

Step	Action Entered	Wilk's Lambda	p
1	PCPOS1	0.82	0.001
2	IRI1	0.78	0.001
3	Sex	0.75	0.001
4	DCP1	0.72	0.001
5	Student Evaluation	0.70	0.001
6	Content	0.69	0.001
7	IRI2	0.69	0.001
8	Affect	0.68	0.001

Table 28

Discriminant Analysis Results

Discrim. Functions	Eigenvalue	Percent of Variance	Canonical Correlation	X^2	Sig.
1	0.34	78.33	0.50	112.65	0.001
2	0.09	21.67	0.29	26.47	0.001

Table 28 results clearly show two significant discriminant dimensions, indicating an underlying two-dimensional area for the data. Once these dimensions were established, the next steps in the analysis were directed to reveal how the original variables separately contributed to the two subsumed discriminant variables. Subsequently, Table 29 reports the standardized discriminant weights of the two functions, while Figure 1 presents the multivariate means (centroids) of each of the three groups on the discriminant dimensions. The graphic display in Figure 1 reveals that the groups are not equidistant in space but vary in their relative distance from each other. (The Group 1 centroid is designated by the symbol +, Group 2 by the symbol *, and Group 3 by the symbol $.) Following Figure 1, Table 30 presents the classification results derived from the discriminant analysis.

Table 29

Discriminant Weights

Variable	Discriminant 1	Discriminant 2
Sex	0.24	-0.58
Studeval	0.33	0.07
DCP1	-0.02	0.71
Affect	0.06	0.29
Content	0.18	0.02
IRI1	0.41	-0.08
IRI2	-0.09	-0.42
PCPOS1	0.69	0.47

Figure 1. Three groups plotted in a two-dimensional space defined by the discriminant dimensions.

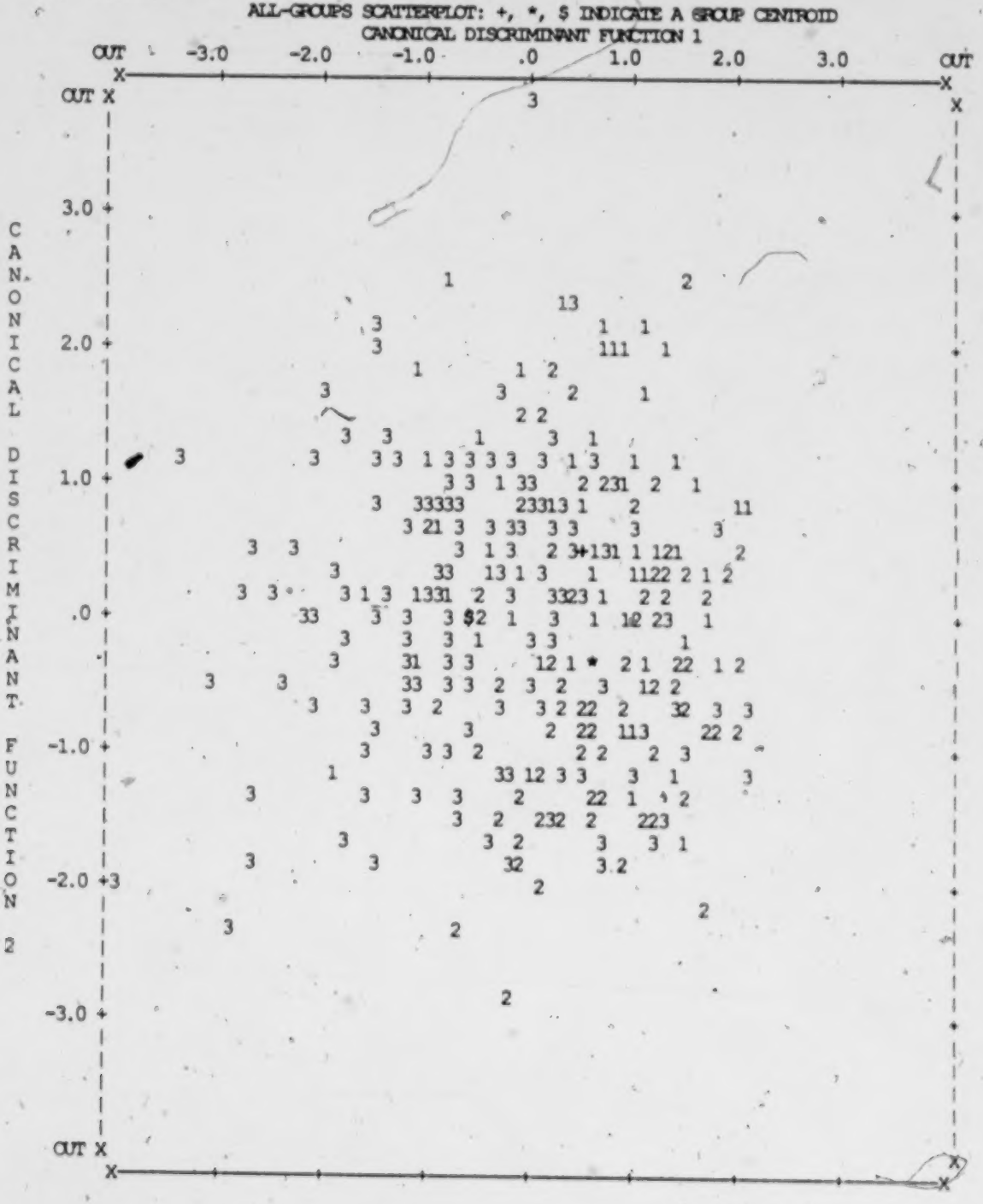

Table 30

Classification Results

	GROUP	Cases	One	Two	Three
GROUP	1	75	29	21	25
			38.7%	28.0%	33.3%
GROUP	2	90	16	50	24
			17.8%	55.6%	26.7%
GROUP	3	135	12	19	104
			8.9%	14.1%	77.0%

Percent of "grouped" cases correctly classified: 61.00%

The crossvalidated sample revealed a classification rate of 52.8%. When the classification results were analyzed, it appeared that Group 2 was misclassified as either Group 1 or Group 3. Interestingly, the Analyses of Variance of the PCPOS subscales revealed that Groups 1 and 2 were significantly different from Group 3 in all instances. It seemed reasonable then to combine Groups 1 and 2 in order to reduce misclassification and enhance prediction.

Group 1+2 versus Group 3. Table 31 reports the means and standard deviations of Groups 1+2 combined and Group 3 for each variable included in the analysis, while Table 32 reports the pooled within-groups correlation matrix for the 13 variables submitted to the stepwise discriminant procedure.

Table 31

Means and Standard Deviations of Groups 1+2 and 3

MEANS

GRP	SEX	HOURS	STUDEV	DOP1	AFFECT	CONT	IRI1	IRI2	IRI3	IRI4	PCPOS1	PCPOS2	PCPOS3
1+2	1.73	6.00	3.91	9.12	1.72	4.96	26.75	28.24	25.35	18.42	30.30	15.79	23.92
3	1.50	5.50	3.59	8.81	1.32	4.89	23.01	25.32	22.57	18.52	27.13	15.04	22.90

STANDARD DEVIATIONS

GRP	SEX	HOURS	STUDEV	DOP1	AFFECT	CONT	IRI1	IRI2	IRI3	IRI4	PCPOS1	PCPOS2	PCPOS3
1+2	0.44	4.11	0.69	2.72	1.42	0.26	4.92	4.05	4.87	4.88	3.86	2.10	2.78
3	0.50	5.01	0.77	2.81	1.30	0.43	5.84	4.81	4.87	4.88	3.86	2.10	2.78

Table 32

Pooled Within-Groups Correlation Matrix

	SEX	HRS	STDEV	DCP1	AFFECT	CONT	IRI1	IRI2	IRI3	IRI4	PCPOS1	PCPOS2	PCPOS3
SEX	1.00												
HRS	-0.10	1.00											
STDEV	-0.04	0.06	1.00										
DCP1	0.03	0.06	0.09	1.00									
AFFECT	0.12	0.07	0.13	0.01	1.00								
CONT	-0.01	0.05	0.07	0.08	0.05	1.00							
IRI1	0.12	-0.02	0.11	-0.02	0.05	-0.10	1.00						
IRI2	0.27	0.01	0.130	0.12	0.20	-0.01	0.37	1.00					
IRI3	0.19	0.02	0.04	0.15	0.11	-0.02	0.172	0.54	1.00				
IRI4	0.13	-0.10	-0.17	-0.06	-0.03	-0.11	-0.09	0.09	-0.04	1.00			
PCPS1	0.20	0.00	-0.02	0.07	0.11	0.01	0.23	0.54	0.43	0.03	1.00		
PCPS2	-0.06	0.03	0.11	0.07	0.01	0.051	0.09	0.22	0.12	-0.07	0.36	1.00	
PCPS3	0.12	-0.04	0.06	0.07	0.08	0.03	0.03	0.31	0.23	-0.02	0.45	0.29	1.00

The series of variables selected through this second stepwise discriminant procedure are reported in Table 33, while Table 34 contains the results of the Discriminant Analysis.

Table 33

Summary Table of Stepwise Discriminant Procedures

Step	Action Entered	Wilk's Lambda	p
1	PCPOS1	0.82	0.001
2	IRI1	0.78	0.001
3	Student Evaluation	0.76	0.001
4	Sex	0.74	0.001
5	Content	0.74	0.001

Table 34

Discriminant Analysis Results

Discriminant Function	Eigenvalue	Percent of Variance	Canonical Correlation	X^2	Sig.
1	0.36	100.00	0.51	90.00	0.001

In order to study how the retained variables separately contributed to the discriminant dimension, Table 35 reports the standardized discriminant weights.

Table 35

Discriminant Weights

Variable	Discriminant
Sex	0.26
Studeval	0.33
Content	0.18
IRI1	0.38
PCPOS1	0.66

Discriminant Analysis indicated that the combination of Groups 1 and 2, when compared to Group 3, produced a classification rate of approximately 73 %. The crossvalidated sample revealed a classification rate of approximately 70%. The initial classification results are displayed in Table 36.

Table 36

Classification Results of Groups 1+2 versus Group 3

		Predicted Group Membership	
Actual Group	N	1+2	3
1+2	165	135	30
		81.8%	18.2%
3	135	50	85
		37.0%	63.0%

Percent of grouped cases correctly classified: 73.33%

Group 1 versus Group 2. The third Discriminant Analysis focused on whether one could predict to Group 1 versus Group 2. Table 37 reports the means and standard deviations of Groups 1 and 2 for each variable included in the analysis, and Table 38 reports the pooled within-groups correlation matrix for the 13 variables submitted to the stepwise discriminant procedure.

Table 37

Means and Standard Deviations of Groups 1 and 2

MEANS

GRP	SEX	HOURS	STDEV	DCP1	AFFECT	CONT	IRI1	IRI2	IRI3	IRI4	PCPOS1	PCPOS2	PCPOS3
1	1.60	6.53	3.93	9.85	1.77	4.97	26.20	27.68	25.12	18.13	30.43	15.75	24.04
2	1.81	5.49	3.88	8.40	1.60	4.94	27.16	28.49	25.51	18.71	30.10	15.789	23.77

STANDARD DEVIATIONS

GRP	SEX	HOURS	STDEV	DCP1	AFFECT	CONT	IRI1	IRI2	IRI3	IRI4	PCPOS1	PCPOS2	PCPOS3
1	0.49	4.55	0.64	2.72	1.42	0.16	5.37	4.45	4.99	3.82	2.73	1.81	2.02
2	0.39	3.71	0.71	2.54	1.39	0.31	4.59	3.70	4.67	3.75	2.97	1.78	2.69

Table 38

Pooled Within-Groups Correlation Matrix

	SEX	HOURS	STUD	DCP1	AFFECT	CONTENT	IRI1	IRI2	IRI3	IRI4	PCPOS1	PCPOS2	PCPOS3
SEX	1.00												
HRS	-0.05	1.00											
STUD	0.12	0.04	1.00										
DCP1	0.12	0.09	0.18	1.00									
AFF	0.17	0.04	0.18	-0.03	1.00								
CONT	0.07	-0.00	0.04	0.08	0.01	1.00							
IRI1	0.04	-0.00	0.10	-0.04	0.03	0.06	1.00						
IRI2	0.30	-0.12	0.09	0.12	0.20	-0.07	0.31	1.00					
IRI3	0.16	-0.06	0.02	0.18	0.07	-0.07	0.13	0.54	1.00				
IRI4	-0.04	-0.14	-0.09	-0.13	-0.04	-0.10	-0.24	-0.01	-0.21	1.00			
PC1	0.11	-0.15	-0.09	0.08	0.09	-0.00	0.18	0.53	0.41	-0.15	1.00		
PC2	-0.00	-0.02	-0.02	0.07	0.08	0.03	0.04	0.25	0.06	-0.13	0.36	1.00	
PC3	0.04	-0.22	-0.00	0.09	0.05	-0.06	0.00	0.29	0.23	-0.02	0.38	0.22	1.00

The next step in the analysis involved identifying the series of variables selected in the stepwise discriminant procedure (Table 39). Following this, Table 40 displays the results of the Discriminant Analysis.

Table 39

Summary Table of Stepwise Discriminant Procedures

Step	Action Entered	Wilk's Lambda	p
1	DCP1	0.93	0.001
2	Sex	0.87	0.001
3	Affect	0.86	0.001

Table 40

Discriminant Analysis Results

Discrim. Function	Eigenvalue	Percent of Variance	Canonical Correlation	X^2	Sig.
1	0.17	100.00	0.38	25.00	0.001

In order to study how the retained variables separately contributed to the discriminant dimension, Table 41 reports the standardized discriminant weights.

Table 41

Discriminant Weights

Variable	Discriminant 1
Sex	-0.73
DCP1	0.78
Affect	0.30

Discriminant Analysis indicated that when Groups 1 and 2 were compared, a classification rate of approximately 64 % was produced. The crossvalidated sample revealed a classification rate of approximately 54%. The initial classification results are displayed in Table 42.

Table 42

Classification Results of Groups 1 versus Group 2

		Predicted Group Membership	
Actual Group	N	1	2
1	75	42 56.0%	33 44.0%
2	90	27 30.0%	63 70.0%

Percent of grouped cases correctly classified: 63.64%

Group 1 versus Group 2 (PCPOS as the only predictor). The last question explored in this analysis was whether the PCPOS could predict to either Group 1 or Group 2 by itself. When the PCPOS and its subscales

were subjected to a stepwise discriminant procedure, the analysis produced Wilks' Lambda statistics which were too large and subsequent F-ratios which were too small to continue the procedure. Consequently, the results indicated that the PCPOS could not predict to either Groups 1 or 2.

CHAPTER 5

The presentation in Chapter Five is divided into the following sections:

(a) A brief introduction and overview of the major findings.

(b) A discussion of the findings as they relate to each hypothesis.

(c) The strengths, deficits, and limitations of the study.

(d) A summary, conclusions drawn from the study, and suggested recommendations.

The main purpose of the present study was to develop and establish the validity of the Peer Counseling Perceptual Orientation Scale (PCPOS). In doing so, the relationship between perceptual organization and help-intended behavior, specifically the communication of empathy, was explored.

The first step in the validation process was to examine the factor structure of the Peer Counseling Perceptual Organization Scale . It was found that the three factors generated by the principal-components analysis of the PCPOS, labeled respectively Helping Orientation (PCPOS1), Self Orientation (PCPOS2), and People Orientation (PCPOS3), corresponded to constructs identified by previous studies (Combs, 1969; Combs & Soper,1963). From this initial indicator of construct validity, a number of other analyses were performed to further assess the validity of the PCPOS. An overview of the findings is presented in the following section.

Overview of Findings

One of the objectives of this study was to show that there is a relationship between perceptual organization and help-intended behavior, specifically, the communication of empathy. No substantive correlations were found between the Discrimination and Communication Index and the

Peer Counseling Perceptual Organization Scale. This finding suggests that the PCPOS and DCI are measuring different attributes.

The second scale employed to study the validity of the PCPOS, the Interpersonal Reactivity Index (IRI), produced findings which were expected. There were consistent, substantive correlations between the PCPOS and Fantasy, Empathic Concern, and Perspective Taking. This provided a measure of convergent validity. There was virtually no correlation with Personal Distress, thus providing a measure of divergent validity.

Another objective of the study was to determine if there were significant differences between groups. It was found that there were significant differences between groups on Helping Orientation, Self Orientation, People Orientation, and the PCPOS Total Test. Groups 1 (selected peer counseling applicants) and 2 (nonselected peer counseling applicants) were significantly different from Group 3. The group differences and similarities were expected. In addition, females scored significantly higher on Helping Orientation and on the total Peer Counseling Perceptual Orientation Scores. This was also expected. Although Self Orientation and People Orientation did not achieve significance by sex, the score differences favoured females. One surprising finding was no significant main effect by grade. It was expected that as grade increased, PCPOS scores would increase. There was, however, an interaction, sex by grade on Empathic Concern, the second scale of the IRI. Empathic Concern was also substantively correlated with Helping Orientation.

When the findings of the three measures, the PCPOS, DCI, and IRI, were synthesized, it seemed reasonable to expect that some combination of

these measures, in addition to designated demographic variables could successfully predict inclusion in either Group 1 or 2. When the predictive findings were explored, it was apparent that using the instruments was marginally better than flipping a coin for determining placement in Groups 1 or 2. The PCPOS by itself had no predictive power.

It was also found that selectors could differentiate between Groups 1 and 2 using The Counselor Rating Scales (CRS). Conversely, The PCPOS did not differentiate between Groups 1 and 2. This finding was surprising because both scales were based on the same constructs: counseling purpose, sense of self, and sense of others. The variable accounting for the difference in results appeared to be the interview——each applicant was required to interact with the selector. If selection is required, both instruments contribute incisive information which can contribute to a decision-making process. If selection is not an issue, the measures do provide information to the student applicant which might contribute to personal development.

These findings support the content, concurrent, and construct validity of the PCPOS. These findings also highlight the problems incurred using self-report scales to identify helping-oriented students (e.g., Groups 1 and 2 were frequently confused in the Discriminant Analysis). Furthermore, the findings underscore the need to exercise caution in drawing inferences regarding potential helpers. Obviously, an orientation to helping, self, and others, and its relationship to help-intended behavior is a complex issue. The next section explores these complexities in greater detail through a focus on each hypothesis.

Hypotheses

Hypothesis One. The first hypothesis stated that there would be significant positive correlations between the scores of students on the Peer Counselor Perceptual Orientation Scale (PCPOS) and students' scores on the Discrimination and Communication Index (DCI). This hypothesis was not supported.

Previous studies (Gray & Tindall, 1974: McIntyre, Thomas, & Borgen, 1982) had revealed that groups of students trained to discriminate between appropriate and inappropriate helping responses were significantly different from untrained groups. It seemed reasonable to expect that if students had higher scores on the PCPOS, then they might possess an intuitive knowledge of what constitutes a more empathic response, training notwithstanding. Another reason for thinking that the two scales would correlate was based on Selman's (1980) research, which suggested that social cognition was a function of socialization. The contention in the current study was that a variety of students may have learned appropriate helping behaviors through social interactions with their peers Thus, students who had a perception of themselves as helpers, and who had been socially reinforced for helping (i.e., communicating empathy) would have correlated scores on the PCPOS and the DCI.

The minimal relationship between the scales is puzzling. At this point, it is difficult to determine whether the scales are intrinsically different or whether intervening variables affected mean scores. The minimal correlations, at the very least, seem to confirm that there are a variety of helping attributes which can be measured in different ways. The PCPOS, for

example, involved a subjective evaluation of thoughts and feelings related to helping. The DCI, conversely, was objectively scored by experts. The first part of the DCI, Discrimination, measures the ability to differentiate between levels of communicated empathy, whereas the PCPOS measures empathy implicitly through a subject's perceptions of others and helping. It could be that Discrimination scores reflect a skill component which is unrelated to a perceptually based helping orientation.

It was also thought that PCPOS items constructed to tap empathic concern would correlate with Affect, the second part of the DCI. In retrospect, it seems that the PCPOS tapped a more global expression of affect, empathic concern, whereas the affect measured in the DCI was situation specific (e.g., anger, hostility, unhappiness, betrayal).

The third part of the DCI, Content, was an element which almost everyone could identify. Subsequently, there was minimal covariance in scores and hence minimal correlation with the PCPOS scores.

The lack of correlation between the DCI and the PCPOS would suggest that there are many dimensions related to individuals being helpers. If the two instruments are relatively independent of each other, their differences provide a measure of divergent validity. Therefore, both instruments could be used to contribute information to selection processes.

Hypothesis Two. The second hypothesis stated that there would be significant positive correlations between the scores of students on the Peer Counseling Perceptual Orientation Scale (PCPOS) and students' scores on the Interpersonal Reactivity Index (IRI). This hypothesis was supported.

There were consistent, substantive correlations between the PCPOS and Fantasy, Empathic Concern, and Perspective-Taking. This provided a measure of convergent validity. There was virtually no correlation with Personal Distress, thus providing a measure of divergent validity. Of the three PCPOS subscales, Helping Orientation correlated most strongly with Fantasy, Empathic Concern and Perspective-Taking. Generally, it seemed that Fantasy and Perspective-Taking both tapped cognitive aspects of empathy while Empathic Concern was based in the affective domain. When the PCPOS was constructed, it was thought that higher scorers would be able to be more sensitive to others, to express emotionality and nonselfish concern, and to take another's point of view. Previous research (Combs, 1969; Combs & Soper, 1969; Davis, 1980;1983; Deitz, 1975; Selman, 1980) provided support for findings which would lead one to believe that attitudes, values, and beliefs would be linked to cognitive and affective empathy. This would also account for the correlation between People Orientation scores and Empathic Concern scores. This finding implies that if students are interested in people, there is a good chance that they experience affective empathy in a given situation.

The findings discussed so far have focussed on the relationship between the Peer Counseling Perceptual Orientation Scale and the first three scales of the Interpersonal Reactivity Index. The following paragraph focuses on the fourth scale of the IRI, Personal Distress, and its minimal correlation with the PCPOS scales. As Davis (1983) stated, Personal Distress taps self-oriented feelings of anxiety in interpersonal settings. Conversely, many of the PCPOS items were formulated to tap a positive

extension of self. When the extremely low correlations between the two scales are considered, it is apparent that the PCPOS and Personal Distress scale measure different concepts. This information is useful because it provides another measure of divergent validity. Further, Personal Distress scores would merit consideration in any selection process. If students believed that they could remain calm in distressing situations, this calmness would probably soothe students experiencing stress.

In concluding this section on the associations between the Peer Counseling Perceptual Organization Scale and the Discrimination and Communication Index, and the Peer Counseling Perceptual Organization Scale and the Interpersonal Reactivity Index, one might say that the PCPOS and the DCI are measuring different attributes. On the other hand, the PCPOS scales correlate significantly with specific elements of the IRI. The variability of the associations would seem to reflect the multidimensionality of helping attributes.

The correlational findings discussed in the preceding paragraphs provide insight into one aspect of validity of this study. A different aspect of the analysis involved checking on the significance of mean differences. These findings are presented in hypothesis three.

Hypothesis Three. It was hypothesized that Group 1 and Group 2 would have significantly higher mean scores than Group 3 on the Peer Counseling Perceptual Orientation Scale. This hypothesis was supported. A 2 x 2 x 3 Analysis of Variance (sex by grade by group) was chosen to determine whether there were significant differences. Each of the three

PCPOS subscales is considered in the following discussion of the hypothesis.

The analysis of Helping Orientation revealed that the most influential variables were sex and group. It was found that female subjects scored significantly higher than males. One of the questions raised in the literature review was whether sex would influence perception and helping responses. Other studies (Adams, 1983; Kurdek & Krile, 1982) have reported that girls scored significantly higher than boys of the same age on interpersonal understanding and empathy levels assessed in a simulated helping situation. Hoffman (1977) found that boys and girls seem to have the same role-taking abilities, but girls tend to be higher in emotional contagion empathy. Thus, the findings support previous research. It is not surprising then, that a subscale like Helping Orientation which focuses on helping and caring for others, should generate higher scores for females.

One of the implications for selection is that females will consistently score higher than males. The higher scores are probably reflective of a broader and deeper interest in helping. Interestingly, although there is not necessarily a cause and effect relationship between scores and sex ratio of applicants, this study noted almost two female applicants for every male. The selector faces two thorny issues: (1) which females does one select and (2) does one select all the males who apply in order to give balance to a program?

It was also found that subjects in this study scored differentially by Group on Helping Orientation. Mean scores for Groups 1 and 2 were significantly greater than the mean score for Group 3. These findings are

similar to previous findings (Brammer, 1988; Beutler, 1983; Carkhuff, 1969a; Frank, 1987; Senger, 1987; Varenhorst) which indicate that lay persons interested in counseling not only have an interest in counseling, but frequently have abilities which draw others to them. These individuals are often the students to whom others turn because they give good advice, and/or they are naturally empathic, active listeners. This being the case, it seemed reasonable to think that many of the students who applied to be peer counselors had some notion of themselves as helpers. In addition, they may have had experiences where other students had turned to them for help. The findings of this study seem to indicate that differences in perceptual organization, specifically a difference in helping orientation or sense of counseling purpose account for the score differences. On the basis of PCPOS scores, either Group 1 or 2 students could be selected as peer counselors.

Another important finding concerning the Peer Counselor Perceptual Orientation Scale was that subjects in this study scored differentially by group on Self Orientation and People Orientation. In both subscales, mean scores for Groups 1 and 2 were significantly greater than the mean score for Group 3.

These findings support previous research (Frank, 1987; McConnaughy, 1987; Rogers, 1958), which can be summed up in Yalom's (1985) explanation of the mechanism of action in a helping relationship. He stated that the acceptance by others and self-acceptance are mutually dependent. Subsequently, the findings of the current study suggest that if students have a positive awareness of self as well as others, then they may

have an interest in peer counseling and may apply to be peer counselors. As was the case in the findings on the first subscale, Groups 1 and 2 are not significantly different. A question one might now ask is, "Are Group 2 students as deserving of selection as Group 1 subjects?"

The overall pattern of results on the subscales was also reflected in the analysis of the PCPOS Total Test. Not surprisingly, two main effects, sex and group were found to be significant. Helping Orientation, which contributed approximately 41 % of the items to the Total Test, contributed substantially to the main effects of sex and group. The interpretation of the PCPOS Total Test results is a reflection of its subscale content.

The hypothesis that Groups 1 (selected applicants for peer counseling), 2 (nonselected applicants for peer counseling) and 3 (students who did not apply) would have significantly different mean scores on the PCPOS was supported (i.e., Groups 1 and 2 were consistently different from Group 3). Although one can only speculate as to why Groups 1 and 2 did not attain significantly different mean scores, one might surmise that Groups 1 and 2 were essentially the same in their perception of themselves as helpers. Although this sameness does not exclude other differences (differences which are identified and discussed later), the common perceptions and interest in peer counseling might identify students who could form a helping network in the schools. This idea is supported by Varenhorst (1974) who suggested that a large peer counseling network could help lonely and isolated students.

One of the advantages in this approach is that a larger number of students would have access to information and training. If a larger network of

trained students were established, then students who needed help would have a better chance of finding a helpful listener, thereby reducing loneliness and isolation. In sum, it would seem that the inclusion of both Groups 1 and 2 on the peer counseling team would be beneficial.

There have been many attempts to describe the qualities of the individual who is or who could possibly become a successful helper. Why not focus on attributes which helpers need and can demonstrate? In the case of students interested in peer counseling, this might be "concern" — concern for self and concern for others which can be demonstrated by applying to be peer counselors. This implies a deemphasizing of "skill". Groups 1 and 2 students seem to be, first and foremost, interested in helping. If skills are not already present, they can be either taught or upgraded. It is the opinion of this author that students, schools, and the community benefit when a maximum number of students who have a helping orientation apply to be peer counselors.

As a matter of fact, students can apply to be peer counselors at almost any time during their schooling. It was surprising then to find no significant main effect by grade, especially when studies (Chandler & Boyes, 1982; Goldstein & Michaels, 1985; McDowell, 1986; Selman, 1980) had recognized developmental differences, particularly with respect to social-cognitive maturity, and concrete and formal operations. The subjects in this study did not score differentially across any of the instruments with the exception of one interaction: sex by grade on Empathic Concern (IRI2). There was a greater difference between female-male scores in high-school than in junior high-school. The interaction had some implications for the

PCPOS because of the correlation between Empathic Concern and People Orientation, the third PCPOS subscale. For example, the combination of the perception of self as a helper, an interest in people, and the ability to communicate empathy might direct high school females to the helping professions. It would be intriguing to follow-up the career choices of these helpers.

The preceding discussion of findings was derived from the Analyses of Variance of the PCPOS. Other findings related to studying the validity of the PCPOS featured the correlations between students' PCPOS scores (Groups 1 and 2) and the Counselor Rating Scales. These findings were separated from the other correlational results because they dealt with Groups 1 and 2 only. Group 3 was not a part of this analysis. The discussion begins in the following section.

Hypothesis Four. It was hypothesized that there would be significant negative correlations between students' Peer Counselor Perceptual Orientation Scale (PCPOS) scores and the selectors' rating (Counselor Rating Scales) of each applicant on self-concept (CRS1), understanding of others (CRS2) and understanding of counseling purpose (CRS3). This hypothesis was confirmed.

The Counselor Rating Scales were constructed by this writer to correspond to the three constructs which provided the foundation of the Peer Counseling Perceptual Orientation Scale: sense of self, sense of others, sense of counseling purpose. The negative correlations between Groups and the CRS scales indicated that as subjects' CRS ratings went up, group placement went down. Group 1 received higher ratings on all three

Counselor Rating Scales than subjects in Group 2. It seemed that the selectors generally perceived Group 1 subjects more favourably.

The findings discussed in Hypothesis Four provided information about the relationships between Groups 1 and 2 PCPOS scores and CRS scores. Hypothesis Five focused on potential similarities and differences between Groups 1 and 2 on the Counselor Rating Scales. An implication at this point of the analysis was that if there were significant differences between Groups 1 and 2 across the three scales, then the PCPOS and CRS scales could be measuring different concepts.

Hypothesis Five. It was hypothesized that there would not be significant differences between the selectors' ratings of Group 1 and Group 2 applicants on self-concept (CRS1), understanding of others (CRS2) and understanding of counseling purpose (CRS3). This hypothesis was not supported. It was found that Group 1 subjects received significantly higher ratings than Group 2 subjects across all three Counselor Rating Scales.

In contrast to the preceding finding, analyses of the Peer Counseling Perceptual Orientation Scale did not indicate any significant differences between mean scores for Group 1 (selected applicants) and Group 2 (nonselected applicants). The differences in results between the PCPOS and CRS could have been a function of construct interpretation or a function of how the two instruments were scored. In addressing the issue of construct interpretation, one might first note that the selectors were in the midst of a selection process which required their assessing the attributes and characteristics of each applicant. The selectors' ratings may have been

representative of the three constructs or their ratings could have been confounded by other impressions.

Secondly, when one considers that people are often drawn to others through similar interests, it seemed possible that the Program Coordinators (Selectors) would select students like themselves; that is, subjects in Group 1 and selectors might possess similar perceptual frameworks. It was found that selectors' PCPOS Total scores were only consistently, significantly different from the scores of nonapplying students (Group 3). Since Groups 1 and 2 were similar to selectors in their perceptual organization, the idea of like selecting like could possibly be ruled out.

The second issue concerning differences between the PCPOS and CRS focuses on scoring. The students filled out a 24 item scale which reflected their thoughts and feelings. The selectors, on the other hand, rated each student in three areas. The end result was a self-report measure and a measure accessing the opinion of others. The differences in scores reflected the perceived differences in groups.

It has been suggested (Brammer, 1988; Carr, 1981; Tindall & Gray, 1985) that there are adolescents who are natural helpers who might be identified through an effective selection process. It is not surprising then, that program coordinators could select Group 1 students using the CRS. The CRS ratings may have been a reflection of the selection process. It is also not surprising that, based on students' self evaluations (i.e., PCPOS scores) there should be no significant differences between Groups 1 and 2. Students in both groups appear to have perceived themselves to be helpers.

The dilemma faced by program coordinators in the selection of peer counselors is that qualified students as selected by the PCPOS and CRS could be passed over. Conversely, some students who appear to be inappropriate will be weeded out. Two issues are apparent. The first is philosophical—should one even try to select peer counselors? If students could benefit from a broad-based program (Myrick, 1987), then all interested students should be allowed to participate in the program. A broad-based, non-selection program might offer the greatest good to the greatest number.

The second issue is applied. If peer counseling programs do involve selection, how can program coordinators effectively select appropriate candidates? The literature (Siegel, 1986; Frank, 1987) suggests that helpers create relationships by inspiring faith and trust. In order to inspire faith and trust, it seems that peer helpers would require an orientation to others and to helping.

If one accepts the preceding premise, then what measures, if any, can one use to select peer counselors effectively? An attempt to answer this question is presented through Hypothesis Six. The discussion focuses on the findings resulting from the Discriminant Function Analyses, the procedure used to predict to Groups 1 and 2.

Hypothesis Six. It was hypothesized that the combined student score on the Peer Counselor Perceptual Orientation Scale, the Discrimination-Communication Index, and the Interpersonal Reactivity Index would predict inclusion in either Group 1 or 2. This hypothesis was supported.

An attempt was made in this study to identify specific patterns of development, perceptions, and interests which were characteristic of peer

counselors. It was found that when Groups 1 (selected students) and 2 (nonselected students) were collapsed and compared with Group 3 (students who did not apply) the crossvalidated prediction rate was approximately sixty-nine percent. One could, however, just as easily obtain similar results by asking students whether or not they were interested in peer counseling.

An objective in this study was to determine whether Groups 1 and 2 could be differentiated. Based on crossvalidated results, it was found that one could accurately predict group placement fifty-four percent of the time using three variables: (1) Sex (2) Discrimination (DCP1), the first component of the Discrimination and Communication Index and (3) Affect, the second component of the Discrimination and Communication Index. When the PCPOS was used by itself for prediction, it was unable to provide a reliable and valid prediction.

Generally, these findings indicate that peer helpers are not a homogeneous group. If score overlaps were minimal, the Discriminant Analysis could have separated the groups meaningfully and assigned membership accurately (Neal & King, 1969). Since score overlaps were not minimal and there was a large degree of misclassification, one might conclude that the measures used in this study were not useful predictors. On the other hand, it might be that these findings were as good as one can get, considering the range of teenage interests and the difficulty encountered by other researchers (Brammer, 1988; Beutler, 1986; Frank, 1987; Senger, 1987; Smith, Glass & Miller, 1980) in identifying helping

attributes. These issues are developed further in the next section which focuses on the strengths and deficits of the instrumentation.

Strengths, Deficits, and Limitations

When one considers that the literature (Varenhorst, 1974;1984) gave some support for the belief that Groups 1 and 2 might be similar, the PCPOS shows some hint of success. Although the subjects' inclination to help in this study is presumably related to their scores on other self-report instruments, the PCPOS appears to be unique in its ties to perceptual psychological theory, and in its identification of an adolescent perceptual orientation related to the communication of empathy. In addition, a self-reporting scale like the PCPOS does have many advantages. These include ease of administration and straightforward scoring. It also avoids the problem of interrater reliability, a concern addressed in the discussion of the Counselor Rating Scales (CRS). Obviously, further research is required to refine the PCPOS. More piloting and a larger sample, for example, would help to refine it.

The strength of the PCPOS does lie in its self-reporting method, yet at the same time this can be a deficit. Subjects could purposely choose to misrepresent themselves. Another strength of the PCPOS is that it provides a more global view of helping. Interestingly, the objectively scored CRS, as well as the Discrimination Scale of the DCI, provided contrasting findings to the PCPOS with respect to Groups 1 and 2.

It should be also be noted that these results may not generalize to other populations. Although an attempt was made to sample a variety of school populations, only one inner-city school was sampled. No rural

schools were included in the study. A second limitation of the PCPOS is that it assesses a perceptual framework comprised of three components. It is possible that a multivariate combination of other variables could better predict help-intended behavior.

In spite of the preceding qualifications, the current study shows that the PCPOS is capable of providing useful information about the perceptual organization of students interested in helping. Further research is required in order to determine the relative advantages and disadvantages of the PCPOS when it is used in the selection of peer counselors.

Summary

Selection procedures make best sense to the extent that they serve the following functions: standardization, the provision of a conceptual framework for selectors, and the improvement of communication between the selectors and the applicants. The present study has synthesized a number of studies which contributed to the development and validation of an instrument designed to serve these functions.

The PCPOS consists of 24 items rationally and conceptually selected and grouped into three subscales. Each of the three subscales was considered on the basis of theoretical and pragmatic bases to be potentially useful in selecting candidates for peer counseling. The findings of this study suggest several conclusions about the psychometric properties of the PCPOS.

Conclusions

1. Test-retest reliability for the subscales ranges from 0.73, 0.63, 0.71 respectively for each subscale to 0.83 for the Total Test.

2. PCPOS items correlate highly within scales and moderately across scales, suggesting that the scales are internally consistent.
3. Group and sex differences indicate that the PCPOS will differentiate across these variables.
4. Correlations between the PCPOS subscales and help-intended measures offer some construct validation for the three subscales.

An advantage of the PCPOS is that its test profile describes a perceptual framework based on attitudes, values and beliefs. These perceptions are operationally defined and they contribute information about students applying to be peer counselors. The finding that Group 1 and Group 2 subjects were frequently misclassified does not imply that the PCPOS lacks predictive power, rather it seems to suggest that subjects in the two groups have similar profiles. Further, it should not be surprising that the program coordinators who selected Group 1 subjects should be able to predict to Group 1 by means of the Counselor Rating Scales. Rating Group 1 subjects higher than Group 2 subjects could be the result of a self-fulfilling prophecy. In effect, the coordinators may not be as reliable a criterion as first anticipated. If the criterion is inconsistent, one cannot presume either effective or ineffective helpers are being selected.

Although the present study reveals that the PCPOS has reasonable test-retest reliability and some criterion and construct validity, the PCPOS has not been used to predict performance on an a priori basis. Future research might attempt to assess the predictive utility of the PCPOS for selecting peer counselors.

Recommendations for Future Research

1. The orientation of future research on selection might focus on the philosophic and applied issue of selection versus nonselection. In practical terms, does one choose Group 1 (selected applicants) types of students over Group 2 (nonselected applicants) types, or should Group 1 and 2 types both be included in the program? Implicit in this suggestion is the contentious issue of how to provide the most efficacious program to the greatest number of students.

2. There appeared to be a lack of information in the literature about the effects of selection competition on peer counseling applicants. Research seems to be required to find out what happens to peer counseling applicants who are not selected. Do these students lose interest in peer counseling? This merits exploration.

3. If a selection process is used, are there criteria, other than those identified in this study, which are predictive of group placement?

4. The multidimensional approach to selection procedures used in this study should be refined so that students receive the maximum benefit from any selection process.

5. One of the major problems in doing research in peer counseling is intrusiveness. How does one study helping interactions without disrupting the helping process? Descriptive studies might address this issue, as might qualitative studies which concentrate on a core of helpers and their clients. This recommendation implicitly addresses methodological concerns..

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APPENDIX A
DEMOGRAPHIC DATA

Table A1

DEMOGRAPHIC DATA

Variable	N	Mean	S.D.	Range
Activity Hours	567	5.95	4.70	0 - 26
Self-evaluation of Academic performance	590	3.76	0.73	1 - 5

APPENDIX B
PEER COORDINATOR INSTRUCTIONS
COUNSELOR RATING SCALES

Peer Coordinator Instructions

I would like to thank each of you in advance for agreeing to participate in this research.

Accurate results in research are dependent upon test administration procedures. In order to facilitate this, would you please note the following:

1. Give instructions simply and clearly.
2. Stress confidentiality and honest responses.
3. Remind the students that these instruments; i.e., the Peer Counselor Perceptual Orientation Scale (PCPOS), the Discrimination and Communication Index, and the Interpersonal Reactivity Index (IRI) are not timed.
4. If students ask about phrasing, please clarify any statement.

Each school will receive 80 envelopes, each containing an information packet. On the outside of the envelope is a code number. On the Reference/Coding sheet (the next page in your packet), the numbers 1-80 are listed, and there is a space for the individual student's name beside each number. Each student is given a numbered envelope. The student completes the measures which are in the envelope, puts the information in the envelope, seals it and gives it to you. You record the student's name on the master sheet opposite the number which is on the envelope (e.g.,#1 John Smith).

Please keep two copies of the reference/coding list, a working copy and a master copy. When the students have been assigned to Groups (i.e., Group One-selected peer helpers; Group Two-nonselected peer helper applicants; Group Three-nonapplying students selected from classes in your school).indicate either G1, G2, or G3 beside the corresponding name and code (e.g., #1 John Smith G2).

Thankyou once again for your cooperation.

Reference/Coding List

	Name	Group
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	Name	Group
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COUNSELOR RATING SCALE

There are three (3) areas in which you are asked to rate each peer helper applicant. Please read the operational definitions (described below) before rating individual applicants. Each applicant will be rated on a separate sheet. Place the applicants's code number in the top right hand corner of the rating sheet. The code number can be obtained by referring to the REFERENCE/CODING sheet which indexes the name and numbers of the students involved in the study. If there are two or more raters involved, please arrive at a consensus concerning each applicant, and use only one (1) rating sheet for each student.

Operational Definitions:

With respect to perceptions of self, good counselors would perceive themselves as:

1.Being identified with people rather than being apart from other persons (i.e., individuals believe themselves to be a part of all humankind).

2. Having the ability to cope with problems. Individuals would see themselves as enough rather than wanting.

3. Self-revealing rather than being reticent about self-disclosing.

With respect to the perceptions of others, good counselors would perceive others as:

1. Able, rather than unable (i.e., people have the capabilites to handle their problems).

2. Being dependable rather than undependable.

3. Being friendly and well-intentioned rather than unfriendly.

4. Being worthy rather then unworthy.

With respect to purposes, good counselors would perceive their purposes as:

1.Essentially freeing and facilitating , rather than coercing and/or manipulating. Control of others would not be important.

2. Altruistic rather than self-serving.

3. Concerned with events in a broad rather than a narrow perspective. They would see beyond the present to future and larger meanings.

Place a check in the appropriate space. **Student Code #___**

	Positive				Negative
1. Self-concept	___	___	___	___	___
2. Perception of others	___	___	___	___	___
3. Counseling purpose/task	___	___	___	___	___

I would also like each selector(s) to complete an information packet (i.e., the three measures). If there is more than one selector, each selector completes a packet. Please put your name in the upper right hand corner of the packet. (You will be assigned a code number later.) When you have completed the information and have also completed your ratings of peer helper applicants, place the packet that you have completed, the ratings (counselor rating scale) of all peer applicants, and one reference/coding sheet in a manila envelope. Label the envelope with your school's name and code number.

Keep the reference/coding sheets in a secure place. If an error has been made in processing, the reference sheets can then be accessed. In addition, the sheets will be necessary for retest information.

Retesting

For retest purposes, select 10% of your original population three weeks after the initial test administration. Please use the same procedure which was initially employed (i.e., an appropriately coded envelope with the measures inside). If a student had the code #2, he/she would have #2 written on a new envelope, as well as the word RETEST (e.g., RETEST#2).

APPENDIX C

PEER COUNSELOR PERCEPTUAL ORIENTATION SCALE

DISCRIMINATION AND COMMUNICATION INDEX

CRITERIA FOR EVALUATING AFFECT IN

FREE RESPONSE STATEMENTS 6-10 (DCI)

INTERPERSONAL REACTIVITY INDEX

The Peer Counseling and Perceptual Orientation Scale is presented in two versions. The first version, which is the version given to the students, contains all 28 items. The second version has the four (4) lie scale items removed (#6,#14,#20,#28).

PCPOS (First Version)

Place a check mark in the space that best describes your response to the statements below.

SD=Strongly Disagree D=Disagree A=Agree SA=Strongly Agree

	SD	D	A	SA
1. I like things and events more than people.	—	—	—	—
2. I understand people.	—	—	—	—
3. People are not friendly.	—	—	—	—
4. I am sensitive to how things look to other people.	—	—	—	—
5. I like to control other people.	—	—	—	—
6. I like everyone I know.	—	—	—	—
7. If a person is having problems, he/she should be helped.	—	—	—	—
8. I can show my feelings.	—	—	—	—
9. Helping other people is very important to me.	—	—	—	—
10. I make the world a better place.	—	—	—	—
11. People are worthwhile.	—	—	—	—
12. People are usually able to deal with events in their lives.	—	—	—	—
13. I would go out of my way to help somebody.	—	—	—	—
14. I never get angry.	—	—	—	—
15. People are dependable.	—	—	—	—
16. I like myself most of the time	—	—	—	—
17. In real life, I take care of myself first, then I help others.	—	—	—	—
18. I know my strengths and weaknesses.	—	—	—	—
19. People respect and care for others.	—	—	—	—
20. I am always happy.	—	—	—	—
21. I often change my plans to help others.	—	—	—	—
22. The future is important.	—	—	—	—

23. I feel a great need to help my friends when they have problems.	—	—	—	—
24. People tend not to reach out to others.	—	—	—	—
25. Helping people enriches my life.	—	—	—	—
26. When I help someone, I make the world a better place.	—	—	—	—
27. People like being with me.	—	—	—	—
28. I never get angry.	—	—	—	—

Second Version of the PCPOS

Place a check mark in the space that best describes your response to the statements below.

SD=Strongly Disagree D=Disagree A=Agree SA=Strongly Agree

	SD	D	A	SA
1. I like things and events more than people.	—	—	—	—
2. I understand people.	—	—	—	—
3. People are not friendly.	—	—	—	—
4. I am sensitive to how things look to other people.	—	—	—	—
5. I like to control other people.	—	—	—	—
6. If a person is having problems, he/she should be helped.	—	—	—	—
7. I can show my feelings.	—	—	—	—
8. Helping other people is very important to me.	—	—	—	—
9. I make the world a better place.	—	—	—	—
10. People are worthwhile.	—	—	—	—
11. People are usually able to deal with events in their lives	—	—	—	—
12. I would go out of my way to help somebody.	—	—	—	—
13. People are dependable.	—	—	—	—
14. I like myself most of the time	—	—	—	—
15. In real life, I take care of myself first, then I help others.	—	—	—	—
16. I know my strengths and weaknesses.	—	—	—	—
17. People respect and care for others.	—	—	—	—
18. I often change my plans to help others.	—	—	—	—
19. The future is important.	—	—	—	—
20. I feel a great need to help my friends when they have problems.	—	—	—	—
21. People tend not to reach out to others.	—	—	—	—
22. Helping people enriches my life.	—	—	—	—
23. When I help someone, I make the world a better place.	—	—	—	—
24. People like being with me.	—	—	—	—

Discrimination and Communication Index

A HELPFUL PERSON IS--a person getting along with himself or herself and one who is genuine (not phony) when talking with others. When he or she talks with other people, he or she is understanding of and respects the feelings of others. This person seems very confident and his or her actions are very natural. He or she can adjust to many different kinds of people, but is still capable of letting one know his or her feelings at the right time.

DIRECTIONS:

1. Rate responses on the following pages. Material includes ten statements which you are to assume are made to you by other persons.
2. For statements 1 through 5, rate each of the four given responses to the statement in order of the stement's helpfulness. A rating of "Low (L)" means no help, "Medium (M)" means some help, and "High (H)" means a high degree of help.

Low (L) response--The response is not helpful to another person.
Medium (M) response--The response is of little help to another person.
High (H) response--The response is extremely helpful--meets all the conditions described in a helpful statement.

Exercise

Statement1

"My parents won't let me go over there at night. They say that I'll get into trouble if I hang around with those kids."

Responses for Statement 1

_____1a. What have you done that makes your parents not trust you?

_____1b. What they don't know won't hurt them. Your mistake is telling them too much about what you do.

_____1c. It's hard sometimes to accept your parents' ideas on things.

_____1d. It is upsetting because your parents won't let you be with the kids. It's like they don't trust your judgment.

Statement 2

"Those snobs won't ask me...they think they are better than me...who needs'em anyhow!"

Responses for Statement 2

_____2a. Why don't you stop pouting about it and find somebody else?

_____2b. It makes you mad to think that others think you're not good enough to be with them.

_____2c. You'd like to be involved with them but they show no interest, it makes you wonder about really what to do.

_____2d. That's the approach I take with stuck-up people...just get as far away as I can.

Statement 3

"My grades are horrible. My parents have grounded me for a month, and I've lost my allowance. I don't know what else could go wrong."

Responses for Statement 3

_____3a. This predicament has you feeling so low it makes you wonder if anything else could go wrong.

_____3b. Don't worry, there's always something worse to to come along.

_____3c. I know what you mean. I've had that same thing happen to me. You feel just like everything is sour at once.

_____3d. Quit feeling sorry for yourself. It won't help a lot.

Statement 4

"I try so hard to be good in P.E. but I get so embarrassed because I can't play football."

Responses for Statement 4

_____4a. Sometimes you just have to face the idea that you can't be good in football.

_____4b. Sometimes it's hard to feel like you're good in football even though you do your best.

_____4c. Why don't you try to get out of P.E.?

_____4d. What have you done to learn to play football?

Statement 5

"I have some new friends that my parents don't like because of their long hair, but they really don't know them."

Responses for Statement 5

_____5a. What have you done that make your parents not like your friends?

_____5b. Why don't you go along with your parents and find new friends?

_____5c. It makes you feel that your parents don't trust you to choose new friends.

_____5d. You should go ahead and be friends anyway.

DIRECTIONS FOR STATEMENTS 6 THROUGH 10

For statements 6 through 10, write what you consider a helpful answer to the person.

Statement 6

"I should have kept my mouth shut. My friend promised she would not mention it to anyone and now the whole school knows. I would really like to beat her up."

Write What You Would Say:

Statement 7

"I really hate this school. My other school I went to last year was so great, and I feel like I don't even want to come to school."

Write What You Would Say:

Statement 8

"I really don't like to share a room with my brother. He is so messy and inconsiderate of me."

Write What You Would Say:

Statement 9

"I really hate my first hour teacher. He says I can't pass his class. I sure would like to get out of his class."

Write What You Would Say:

Statement 10

"I wish Mom would leave me alone and let me do what I want to do. She always has to give me the third degree when I want to go somewhere.

Write What You Would Say:

CRITERIA FOR EVALUATING AFFECT IN FREE RESPONSE STATEMENTS 6-10

1. Answer length did not necessarily determine answer quality.
2. If the rater felt ambivalent about an answer, a rating of 0 was to be awarded.
3. Affect could be expressed through self-disclosure.
4. Introductory clauses such as "It sounds like..." frequently indicated the presence of affect.
5. The forcefulness of phrasing seemed to differentiate between the presence and absence of affect
6. Key words indicating the presence of affect in each item were identified. These key words provided a focus for the rater. Key words identifying affect in statements 6-10 were as follows:

Statement 6: Anger, regret, frustration, betrayal.

Statement 7: Unhappiness, being upset , loneliness, hatred.

Statement 8: Irritation, being upset, anger, dislike, lack of respect

Statement 9: Anger, hatred, frustration, fear

Statement 10: Irritation responsibility, frustration, trust, unhappiness.

INTERPERSONAL REACTIVITY INDEX

THE FOLLOWING STATEMENTS INQUIRE ABOUT YOUR THOUGHTS AND FEELINGS IN A VARIETY OF SITUATIONS. FOR EACH ITEM, INDICATE HOW WELL IT DESCRIBES YOU BY CHOOSING THE APPROPRIATE LETTER ON THE SCALE AT THE TOP OF THE PAGE: A, B, C, D, OR E. WHEN YOU HAVE DECIDED ON YOUR ANSWER, FILL IN THE LETTER ON THE ANSWER SPACE NEXT TO THE ITEM NUMBER. READ EACH ITEM CAREFULLY BEFORE RESPONDING. ANSWER AS HONESTLY AS YOU CAN. THANK YOU.

Answer Scale:

A	B	C	D	E
Does not describe me well				Describes me very well

Answer Item

___1. I daydream and fantasize, with some regularity, about things that might happen to me.

___2. I often have tender, concerned feelings for people less fortunate than me.

___3. I sometimes find it difficult to see things from the "other guy's" point of view.

___4. Sometimes I don't feel very sorry for other people when they are having problems.

___5. I really get involved with the feeling of the characters in a novel.

___6. In emergency situations, I feel apprehensive and ill-at-ease.

___7. I am usually objective when I watch a movie or play, and I don't often get completely caught up in it

___8. I try to look at everybody's side of a disagreement before I make a decision.

___9. When I see someone being taken advantage of, I feel kind of protective towards them.

___10. I sometimes feel helpless when I am in the middle of a very emotional situation.

___11. I sometimes try to understand my friends better by imagining how things look from their perspective.

___12. Becoming extremely involved in a good book or movie is somewhat rare for me.

___13. When I see someone get hurt, I tend to remain calm.

___14. Other people's misfortunes do not usually disturb me a great deal.

___15. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.

___16. After seeing a play or movie, I have felt as though I were one of the characters.

___17. Being in tense emotional situation scares me.

___18. When I see someone being treated unfairly, I sometimes don't feel very much pity for them.

___19. I am usually pretty effective in dealing with emergencies.

___20. I am often quite touched by things that I see happen.

___21. I believe that there are two sides to every question and try to look at them both.

___22. I would describe myself as a pretty soft-hearted person.

___23. When I watch a good movie, I can very easily put myself in the place of a leading character.

___24. I tend to lose control during emergencies.

___25. When I'm upset at someone, I usually try to "put myself in his shoes" for a while.

___26. When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.

___27. When I see someone who badly needs help in an emergency, I go to pieces.

___28. Before criticizing somebody, I try to imagine how I would feel if I were in their place.

APPENDIX D

INFORMATION GIVEN TO STUDENTS

Information Sheet

Thankyou for taking part in this research. As your teacher or counselor has explained, the purpose of this study is to find out how students think of themselves, of others, and of helping. We would like you to complete the following information package. There are no right or wrong answers to any of the questions. We would like only your honest opinion. Please answer all the questions.

Please do not put your name on any of the sheets. When you have completed the information package, put the materials in the envelope which was given to you at the beginning of the class, seal it, and give it to your teacher. Your responses will not be read by anyone at your school.

Thankyou.

General Information:

1. Please circle the correct information.

Age: 10 11 12 13 14 15 16 17 18 19

Grade: 6 7 8 9 10 11 12

Sex: Male Female

2. How many hours a week do you spend in organized activities (e.g., sports, music lessons, clubs, band, S.R.C., scouts, etc.)? ____

3. Circle the phrase that best describes you:

"As a student, I would consider myself:"

very good good average below average not good

Dear Parents:

This is a letter to ask your permission to have your son or daughter participate in a research project. The research concerns what students think about a variety of helping situations.

The study would require approximately thirty (30) minutes of your son's or daughter's time. Participation is voluntary, and no names are required; consequently, all responses are anonymous and confidential.

The project has been approved by the Ethics Review Committee at the University of Alberta, the school board and the school. I hope that you will give permission for your daughter or son to participate in this particular research. The people who have been involved in designing the study are excited about the use of the research results to better understand how students relate to and help each other.

Sincerely,
Dale Parr
Ph.D. Candidate
Supervisor: Dr. R. Jevne
Educational Psychology

I give my permission for _____(Name) to participate in the study on helping coordinated by Mr. Parr.

_____(Parent's signature)

_____(Date)

Please return to _____.

APPENDIX E

RELIABILITIES FOR THE INTERPERSONAL REACTIVITY INDEX

RELIABILITIES FOR THE DISCRIMINATION AND COMMUNICATION INDEX

The Interpersonal Reactivity Index (N=566) was scored. Hoyt's Estimate of Reliability was calculated for each subscale: Fantasy=0.72, Empathic Concern=0.73, Perspective-Taking=0.73, Personal Distress=0.63. Test-retest correlations (N=90) for the four subscales were Fantasy=0.70, Empathic Concern=0.63, Perspective-Taking=0.62, Personal Distress=0.34.

The Discrimination and Communication Index (DCI) was scored. Test-retest correlations (N=90) for the Discrimination index (Part 1), and Affect and Content (Part 2) respectively were.0.28, 0.46, 0.29.

APPENDIX F

EIGENVALUES AND CATTELL'S SCREE TEST

The principal-components analysis generated an eigenvalue for each of the 24 items in the PCPOS. Six of the eigenvalues were 1.00 or higher (Table 1F). Kaiser's criterion (Tinsley & Tinsley, 1987) states that only elements with an eigenvalue greater than or equal to 1.00 should be retained in the factor analysis. The other factor extraction method involved Cattell's scree test (Table 2F) which is based on the assumption that as a matrix becomes residual, successive factors extracted from the matrix signify error variance (Tinsley & Tinsley, 1987). The scree test required that the eigenvalues be plotted. The interpretation of the plot suggested that three factors emerged before the scree was defined.

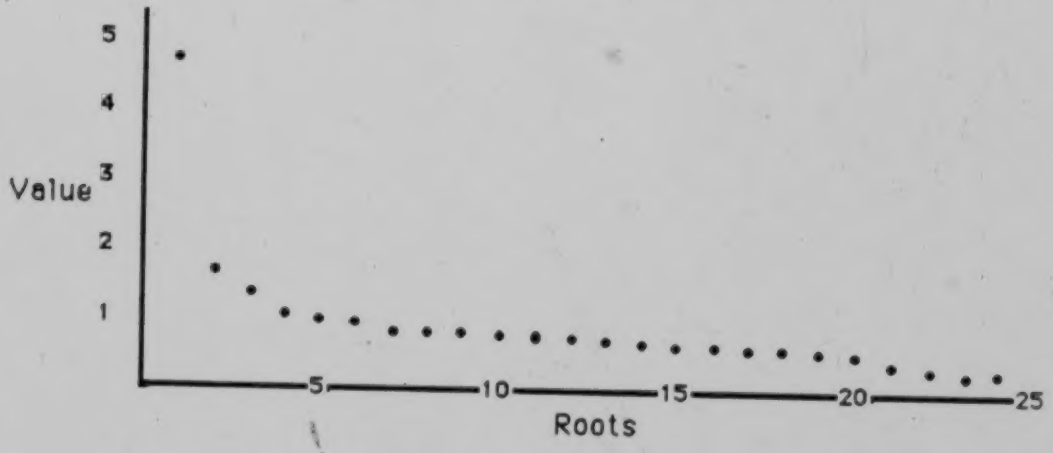
Table 1F

Eigenvalues

Col.1	2	3	4	5	6	7	8	9	10	11	12
4.91	1.75	1.50	1.15	1.13	1.03	0.97	0.94	0.93	0.90	0.86	0.82
Col.13	14	15	16	17	18	19	20	21	22	23	24
0.77	0.74	0.72	0.70	0.66	0.61	0.57	0.55	0.50	0.47	0.21	0.39

Table 2F

Scree Test of Peer Counseling Perceptual Organization Scale



APPENDIX G

ANALYSES OF THE INTERPERSONAL REACTIVITY INDEX (IRI) AND THE DISCRIMINATION AND COMMUNICATION INDEX (DCI)

This appendix presents the scoring statistics and subsequent analyses for the Interpersonal Reactivity Index as well as the analysis of the Discrimination and Communication Index.

The Interpersonal Reactivity Index (N=566) was scored. Hoyt's Estimate of Reliability was calculated for each subscale: Fantasy=0.72, Empathic Concern=0.73, Perspective-Taking=0.73, Personal Distress=0.63. Test-retest correlations (N=90) for the four subscales were Fantasy=0.70, Empathic Concern=0.63, Perspective-Taking=0.62, Personal Distress=0.34.

Table G1 reports the means and standard deviations for the four scales while the cumulative test statistics are reported in Table G2.

Table G1

Means and Standard Deviations of the Interpersonal Reactivity Index (IRI)

*Item	Mean	Standard Deviation
IRI 1 (Fantasy)		
1	3.33	1.25
5	3.62	1.37
7	3.69	1.25
12	3.88	1.32
16	3.39	1.33
23	3.54	1.33
26	3.74	1.27
IRI2 (Empathic Concern)		
2	3.88	1.03
4	3.70	1.19
9	3.98	0.98
14	3.81	1.12
18	3.97	1.19
20	3.89	1.08
22	3.75	1.15
IRI3 (Perspective Taking)		
3	3.24	1.17
8	3.70	1.18
11	3.77	1.14
15	3.32	1.28
21	3.67	1.13
25	2.86	1.27
28	3.35	1.21
IRI4 (Personal Distress)		
6	2.68	1.30
10	3.60	1.16
13	2.90	1.25
17	2.85	1.25
19	2.35	1.05
24	2.00	1.07
27	2.03	1.06

Table G2

Cumulative Test Statistics for the Interpersonal Reactivity Index

Factor	N	Mean	S.D.	Items	Range	Hoyt's Reliability	SEM±
IRI 1	566	25.21	5.56	7.00	7.00 - 35.00	0.72	2.73
IRI 2	566	26.98	4.81	7.00	12.00 - 35.00	0.73	2.30
IRI 3	566	23.90	5.21	7.00	7.00 - 35.00	0.73	2.49
IRI 4	566	18.39	4.54	7.00	7.00 - 32.00	0.63	2.56

The next step in the analysis involved checking on the significance of mean differences. A 2 x 2 x 3 Analysis of Variance (sex by grade by group) was chosen for analysis in order to determine whether there were significant differences between Groups 1, 2, and 3 mean scores on the Interpersonal Reactivity Index. Although the analysis of the IRI involved 4 dependent variables, the combined analysis of the PCPOS, IRI, and DCI involved 11 dependent variables. A significance level of $p<0.05$ was chosen to control for Type 1 error. As a result, The Bonferroni technique (Haase & Ellis, 1987; Kotz & Johnson, 1982) was used to determine a testwise significance level of $p<0.0045$. Subsequent main effects were analyzed using one-way Analyses of Variance. The level of significance was set at $p<0.0045$ and the Scheffé procedure was chosen for Post Hoc Analyses.

The means and standard deviations used in the analyses are reported in Table G1. Table G3 reports a summary of the Analysis of Variance of IRI 1 (FANTASY). Two main effects were significant: Sex

(F=14.45; df= 1, 554; p<0.001); Group (F=20.66; df= 2, 554; p<0.001). In the first main effect, sex, female subjects scored significantly higher than males.

The second main effect showed that subjects in this study scored differentially by group. Table G4 displays a Oneway Analysis of Variance (F=28.21; df= 2, 563; p<0.001) was performed in order to analyze the differences in group means. A Post Hoc Analysis, also presented in Table G4, was done using the Scheffe procedure for this main effect. The mean scores of Groups 1 and 2 were significantly different (p<0.05) from Group 3 mean scores.

Table G3

Analysis of Variance of IRI1 (FANTASY) by Sex, Grade, and Group

Source of Variation	DF	MS	F	p
Sex	1	400.81	14.45	.001
Grade	1	.22	.00	.93
Group	2	572.93	20.65	.001
Sex by Grade	1	9.16	.33	.57
Sex by Group	2	19.85	.72	.49
Grade by Group	2	27.83	1.00	.37
Sex by Grade by Group	2	.10	.00	.99
Residual	554	27.73		
Total	565			

Table G4

Analysis of Variance of IRI1 (FANTASY) by Group

Source of Variation	DF	MS	F
Between Groups	2	795.84	28.21
Within Groups	563	28.21	
Total	565		

Group	N	Mean	Standard Deviation
Grp 1	143	26.31	4.91
Grp 2	169	27.04	4.77
Grp 3	254	23.38	5.84
Total	566	25.21	5.56

Scheffe Analysis of IRI1 Group Means

Groups	Means	3	1	2
Grp 3	23.38			
Grp 1	26.31	*		
Grp 2	27.04	*		

Group 3 - Students who did not apply to be peer counselors

Group 2 - Students who applied but who were not selected

Group 1 - Students who applied to be peer counselors and were selected.

Table G5 reports a summary of the Analysis of Variance of IRI 2 (EMPATHIC CONCERN). Two main effects were significant: Sex ($F=46.30$; $df= 1, 554$; $p<0.001$); Group ($F=15.32$; $df= 2,554$; $p<0.001$). In the first main effect, sex, female subjects scored significantly higher than males.

The second main effect showed that subjects in this study scored differentially by group. A Oneway Analysis of Variance (Table G6) ($F=502.90$; $df= 2, 563$; $p<0.001$) was performed in order to analyze the differences in group means. A Post Hoc Analysis, also presented in Table G6, was done using the Scheffe procedure for this main effect. The mean scores of Groups 1 and 2 were significantly different ($p<0.05$) from Group 3 mean scores.

The sex by grade interaction was also significant ($F=11.42$; $df= 1, 554$; $p<0.001$). Simple main effects analysis indicated that females scored significantly higher than males ($t=-7.92$; $df= 564$; $p<0.001$) and students in Division IV (grades 10,11,12) and Division III (grades 7,8,9) were not significantly different ($t=-0.62$; $df=564$; $p<0.54$). The interaction revealed that the differences between male - female mean scores in Division IV were significantly different when compared to the differences between Division III male - female scores.

Table G5

Analysis of Variance of IRI 2 (EMPATHIC CONCERN) by Sex, Grade, and Group

Source of Variation	DF	MS	F	p
Sex	1	903.46	46.30	.001
Grade	1	27.50	1.41	.236
Group	2	298.98	15.32	.001
Sex by Grade	1	222.87	11.42	.001
Sex by Group	2	0.03	.00	.99
Grade by Group	2	25.11	1.29	.28
Sex by Grade by Group	2	34.61	1.77	.17
Residual	554	19.51		
Total	565			

Table G6

Oneway Analysis of Variance of IRI 2 (EMPATHIC CONCERN) by Group

Source of Variation	DF	Mean Square	F
Between Groups	2	502.90	22.51
Within Groups	563	21.39	
Total	565		

Group	N	Mean	Standard Deviation
Grp 1	143	28.34	4.28
Grp 2	169	28.05	4.47
Grp 3	254	25.51	4.90
Total	5616	26.98	4.80

Scheffe Analysis of IRI 2 Group Means

Groups	Means	3	2	1
Grp 3	25.51			
Grp 2	28.05	*		
Grp 1	28.34	*		

Group 3 - Students who did not apply to be peer counselors

Group 2 - Students who applied but who were not selected

Group 1 - Students who applied to be peer counselors and were selected.

Table G7 reports a summary of the Analysis of Variance of IRI 3 (PERSPECTIVE TAKING). Two main effects were significant: Sex ($F=12.88$; $df= 1, 554$; $p<0.001$) Group ($F=16.91$; $df=1, 554$; $p<0.001$). A Oneway Analysis of Variance (Table G8) ($F=568.82$; $df= 2, 563$; $p<0.001$) was performed in order to analyze the differences in group means. A Post Hoc Analysis, also presented in Table G8, was done using the Scheffé procedure for this main effect. The mean scores of Groups 1 and 2 were significantly different ($p<0.05$) from Group 3 mean scores.

Table G7
Analysis of Variance of IRI3 (PERSPECTIVE TAKING)
by Sex, Grade, and Group

Source of Variation	DF	MS	F	p
Sex	1	319.00	12.88	.001
Grade	1	.01	.00	.98
Group	2	418.78	16.91	.001
Sex by Grade	1	68.76	2.78	.10
Sex by Group	2	1.90	.08	.93
Grade by Group	2	15.04	.61	.55
Sex by Grade by Group	2	42.49	1.72	.18
Residual	554	27.17		
Total	565			

Table G8

Oneway Analysis of Variance of IRI3 (PERSPECTIVE TAKING) by Group

Source of Variation	DF	MS	F
Between Groups	2	568.82	22.53
Within Groups	563	25.24	
Total	565		

Group	N	Mean	Standard Deviation
Grp 1	143	25.36	4.73
Grp 2	169	25.01	5.04
Grp 3	254	22.34	5.17
Total	566	23.90	5.21

Scheffe Analysis of IRI 3 Group Means

Groups	Means	3	2	1
Grp 3	22.34			
Grp 2	25.01	*		
Grp 1	25.36	*		

Group 3 - Students who did not apply to be peer counselors
Group 2 - Students who applied but who were not selected
Group 1 - Students who applied to be peer counselors and were selected.

Table G9 reports a summary of the Analysis of Variance of IRI 4 (PERSONAL DISTRESS). The main effect, sex ($F=13.97$; $df= 1, 554$; $p<0.001$), was significant. This main effect revealed that female subjects scored significantly higher than males.

Table G9
Analysis of Variance of IRI 4 (PERSONAL DISTRESS)
by Sex, Grade, and Group

Source of Variation	DF	MS	F	p
Sex	1	279.32	13.97	.001
Grade	1	30.16	1.5	.22
Group	2	56.07	2.8	.06
Sex by Grade	1	.03	.001	.97
Sex by Group	2	61.52	3.08	.05
Grade by Group	2	9.99	.499	.61
Sex by Grade by Group	2	24.357	1.22	.30
Residual	554	20.00		
Total	565			

The reporting of Table G9 concludes the Analyses of Variance of the Interpersonal Reactivity Index. The next subsection reports the results of the analysis of results for the Discrimination and Communication Index.

Discrimination and Communication Index (DCI) Analysis

The Discrimination and Communication Index (DCI) was scored by hand during the initial data compilation. Test-retest correlations (N=90) were also calculated for the Discrimination and Communication Index. The Test-retest correlations for the discrimination index (Part 1), and affect and content (Part 2) respectively were 0.28, 0.46, 0.29.

Table G10 reports the means and standard deviations for the two parts of the DCI.

Table G10

Means and Standard Deviations

of the Discrimination and Communication Index (DCI)

*Item	N	Mean	Standard Deviation
Discrimination	586	8.87	2.64
Affect	584	1.52	1.39
Content	584	4.89	.45

A 2 x 2 x 3 Analysis of Variance (sex by grade by group) was chosen for analysis in order to determine whether there were significant differences between Groups 1, 2, and 3 mean scores on the Discrimination and Communication Index. Although the analysis of the DCI involved 3 dependent variables, the combined analysis of the PCPOS, IRI, and DCI involved 11 dependent variables. A significance level of $p<0.05$ was chosen to control for Type 1 error. As a result, The Bonferroni technique (Haase & Ellis, 1987; Kotz & Johnson, 1982) was used to determine a testwise significance level of $p<0.0045$. Subsequent main effects were analyzed using one-way Analyses of Variance. The level of significance was set at $p<.0045$ and the Scheffé procedure was chosen for Post Hoc Analyses.

Table G11 reports a summary of the Analysis of Variance of Part One (1) of the measure, Discrimination (the ability to discriminate between high,

medium, and low empathic statements). The main effect, group ($F=12.28$; $df= 2, 572$; $p<0.001$), was significant. A Oneway Analysis of Variance ($F=13.03$; $df= 2, 583$; $p<0.001$) was performed in order to analyze the differences in group means (Table G12). A Post Hoc Analysis, also presented in Table G12, was done using the Scheffé procedure for this main effect. The mean scores of Group 1 were significantly different ($p<0.05$) from Group 2 and Group 3 mean scores.

Table G11

Analysis of Variance of Discrimination by Sex, Grade, and Group

Source of Variation	DF	MS	F	p
Sex	1	23.35	3.46	.06
Grade	1	1.65	.245	.62
Group	2	82.94	12.28	.001
Sex by Grade	1	.713	.11	.75
Sex by Group	2	7.64	1.13	.32
Grade by Group	2	1.05	.16	.86
Sex by Grade by Group	2	0.99	.15	.86
Residual	572	6.75		
Total	583			

Table G12

Analysis of Variance of Discrimination by Group

Source of Variation	DF	MS	F
Between Groups	2	87.36	13.03
Within Groups	583	6.71	
Total	585		

Group	N	Mean	Standard Deviation
Grp 1	154	9.75	2.64
Grp 2	174	8.35	2.45
Grp 3	258	8.69	2.65
Total	586	8.87	2.64

Scheffé Analysis of Discrimination Group Means

Groups	Means	2	3	1
Grp 2	8.35			
Grp 3	8.69			
Grp 1	9.75	*	*	

Group 2 - Students who applied but who were not selected

Group 3 - Students who did not apply to be peer counselors

Group 1 - Students who applied to be peer counselors and were selected.

Table G13 reports a summary of the Analysis of Variance of Affect. Two main effects were significant: Sex ($F=11.45$; $df= 1, 572$; $p<0.001$); Group ($F=5.31$; $df= 2, 572$; $p<0.005$). In the first main effect, sex, female subjects scored significantly higher than males.

The second main effect showed that subjects in this study scored differentially by group. A Oneway Analysis of Variance (Table G14) ($F=7.35$; $df= 2, 581$; $p<0.001$) was performed in order to analyze the differences in group means. A Post Hoc Analysis, also presented in Table G14, was done using the Scheffé procedure for this main effect. The mean scores of Group 1 were significantly different ($p<0.05$) from Group 3 mean scores.

Table G13

Analysis of Variance of Affect by Sex, Grade, and Group

Source of Variation	DF	MS	F	p
Sex	1	21.20	11.45	.001
Grade	1	1.14	.61	.43
Group	2	9.84	5.31	.005
Sex by Grade	1	.66	.35	.55
Sex by Group	2	1.13	.61	.54
Grade by Group	2	1.5	.82	.44
Sex by Grade by Group	2	1.19	.53	.53
Residual	572	1.85		
Total	583			

Table G14

Oneway Analysis of Variance of Affect by Group

Source of Variation	DF	MS	F
Between Groups	2	13.79	7.35
Within Groups	581	1.88	
Total	585		

Group	N	Mean	Standard Deviation
Grp 1	154	1.81	1.45
Grp 2	172	1.59	1.40
Grp 3	258	1.29	1.30
Total	584	1.52	1.38

Scheffé Analysis of Affect Group Means

Groups	Means	3	2	1
Grp 3	1.29			
Grp 2	1.59			
Grp 1	1.81	*		

Group 3 - Students who did not apply to be peer counselors

Group 2 - Students who applied but who were not selected

Group 1 - Students who applied to be peer counselors and were selected.

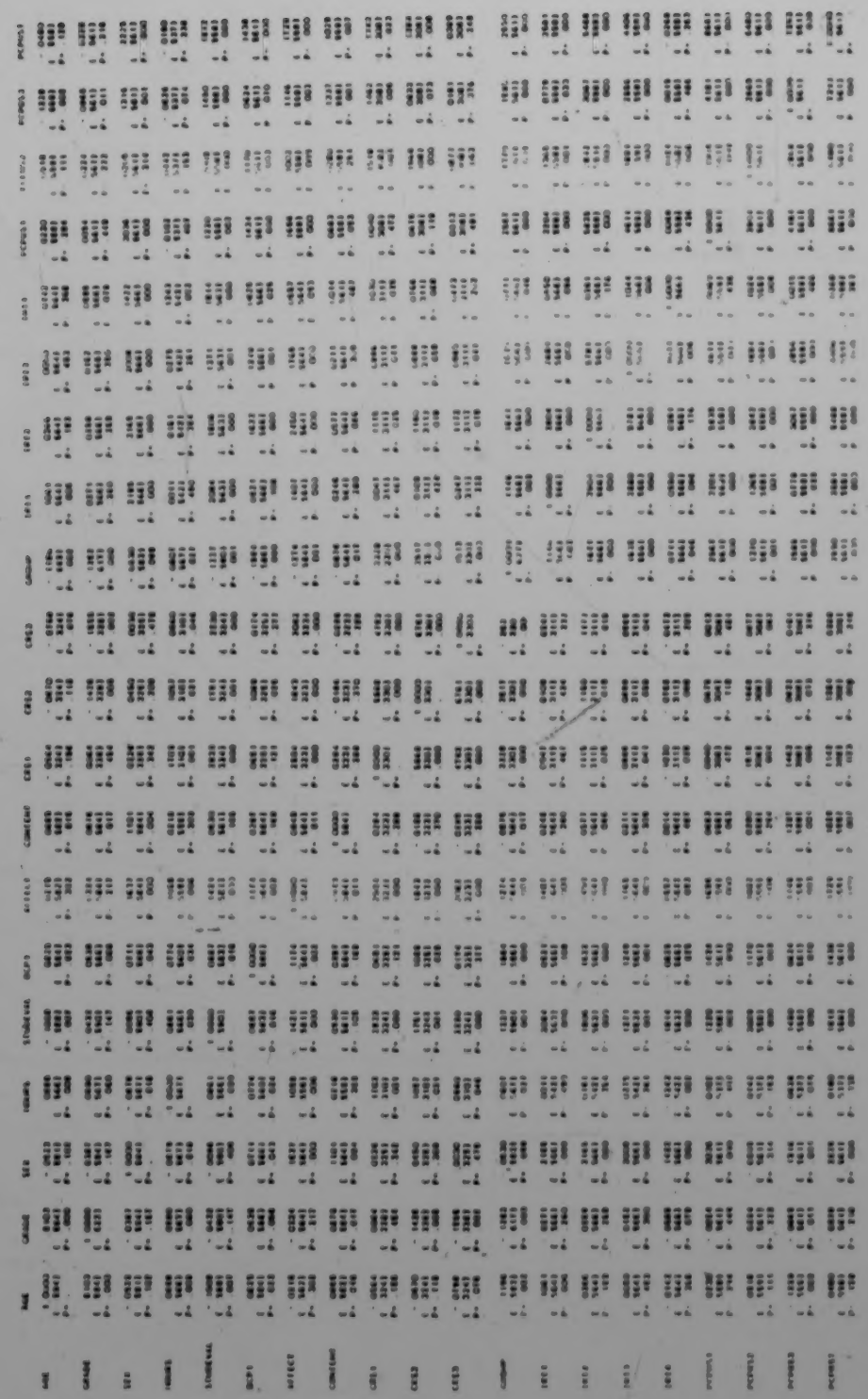
Table G15 reports a summary of the Analysis of Variance of Content, the third component of the Discrimination and Communication Index. There were no significant main effects or interactions.

Table G15

Analysis of Variance of Content by Sex, Grade, and Group

Source of Variation	DF	MS	F	p
Sex	1	.776	3.80	.05
Grade	1	.99	4.8	.03
Group	2	.40	1.96	.14
Sex by Grade	1	.03	.14	.71
Sex by Group	2	.08	.39	.68
Grade by Group	2	.09	.42	.66
Sex by Grade by Group	2	.07	.35	.70
Residual	572	.20		
Total	583			

This concludes the analyses of the IRI and the DCI.

CORRELATION MATRIX FOR ALL VARIABLES

Pearson Correlation Matrix